Lectures
ON
ORTHOPÆDIC SURGERY.

Delivered at St. George's Hospital, 1868.

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LECTURE I.

GENTLEMEN,—Orthopædic surgery embraces deformities of the trunk, neck, and extremities. Those deformities which arise during embryonic or fœtal life exist at birth, and are therefore termed *congenital;* whereas *non-congenital* deformities are acquired at any subsequent period of life.

I propose to call your attention in the first place to the *causes of congenital deformities;* secondly, to consider the *causes of non-congenital deformities;* and, thirdly, to bring under your notice the *causes and modes of development of certain affections of the osseous system.*

The *causes of congenital deformities* are, especially, *arrest of development* and *spasmodic action.*

Arrest of development will occasion deformity, or even monstrosity; occurring as it may in a limb whilst growth elsewhere proceeds in a normal manner. Thus, if in the embryo growth be arrested, and this condition of parts be continued in the fœtus, it becomes monstrosity. For instance, a hand without fingers, or a foot without toes, would represent, according to Wagner, the conditions of those parts of the embryo at the seventh week of development. Now, should arrest of development take place in these parts at this period of existence, a form, which in the normal condition is transient only and confined to embryonic life, becomes, if continued, monstrosity in the child. It has further been shown by Wagner that up to the fourth or fifth month, or even later, the embryo presents a club-footed appearance. Should arrest of development occur at this period, so that the muscles on the inner side of the limb (say the adductors of the foot) cease to be developed in proportion to the rest of the limb, the condition now alluded to—the normal condition of the feet at this period—necessarily remains, and, as regards the affected muscles, development at birth is imperfect, and the feet still continue, as in the embryo, clubbed.

Spasmodic action is, however, without doubt, the most frequent cause of congenital deformities which depend on muscular action. This spasm may be clonic, or it may be of a more permanent character. It is due to irritation; and whether this irritation be occasioned by dentition, by intestinal worms, or other cause, it may give rise to club-foot, club-hand, wry-neck, squinting, or other deformity. In explanation of the last sentence, I may remark that intestinal worms are known to exist in the fœtus; and, also, I may quote the following words from a paper read by the late Dr. Marshall Hall before the Medical Society of London, and published in THE LANCET: "The age of convulsive diseases is specially that of dentition, and of what I may term dubious diet. Dentition, as I understand the term, begins at birth, or even before. It is then that the tissues of the alveolar processes and cavities become the seat of augmented vascular action and nervous excitement, which do not cease until dentition is completed. I think it probable that many convulsive affections and their dire effects have their origin in utero; certainly many of the latter are congenital."

But spasmodic action, however excited, may be transitory: the spasm then subsides, and a healthy condition results; and the effects which are produced on the fœtus are much less severe than when a similar spasmodic condition occurs after birth. It is not uncommon, however, that a partial recovery alone shall take place, and that after birth the child shall continue subject to spasmodic movements, the limbs not being entirely under the control of the will. Should irritation be persistent, paralysis, together with degeneration of the affected muscles, may probably ensue.

Again, in the anencephalic monster every known form of distortion may exist, as well as luxations, whether complete or incomplete. Also, together with hydrocephalus and hydrorachis, the same distortions are met with. There is no known form of distortion that does not occur with lesions such as these.

During fœtal life growth is remarkably rapid. Now, should spasm continue during a short period only, so that one set of muscles remains more or less contracted, their antagonists will be in an equal degree elongated and weakened, and the growth of the contracted muscles will not be in proportion to the rest of the limb. They are then said to have undergone *congenital structural shortening.*

Like other nervous affections, congenital deformities are hereditary. For instance, five boys in one family came under my care for congenital talipes varus, their father, uncle, and paternal grandfather having likewise suffered from similar forms of distortion. In each generation females were added to this family, but none of them were deformed at birth. I have lately also seen another family of four children, two boys and two girls, all of whom were club-footed at birth; their mother also was club-footed. Dr. Little, speaking of talipes varus, says: "I have traced it on the paternal side even through four generations—namely, the male infant, the father, the grandfather, and the great-grandfather." Mr. Wm. Adams, also, relates the case of a man who was born with double talipes varus. This individual had thirteen children by one wife, five of whom were club-footed, three boys and two girls. In four of these children both feet were affected. The eldest of these children at nineteen years of age gave birth to a club-footed child. Also a cousin of these thirteen children was born with talipes varus. Again, Mr. Tamplin mentions that eight children in one family were born with double varus. In this instance, however, it is not mentioned that the parents were in any way deformed, and therefore this cannot be considered as an instance of hereditary origin, although it is scarcely less interesting than if it were so.

It is believed by some that intra-uterine pressure may be the cause of congenital deformities. It should be remembered, however, that at an early period of gestation the embryo floats in the liquor amnii, and that as utero-gestation advances, and the fœtus becomes bent upon itself, the fluid which surrounds the fœtus prevents injurious pressure of the uterus, and enables those movements to take place which, indeed, become stronger and more marked until the period of gestation is completed. I have made use of the term "pressure of the uterus," but it is misapplied; for in its passive state, and until labour commences, the uterus exercises no pressure on the fœtus, but yields to every movement from within; and it is only when this passive condition is exchanged for one of action, to expel its contents, that the uterus exercises direct pressure on the fœtus. It is therefore impossible that the uterus should produce such pressure upon the fœtus during gestation as to induce deformity. We may consequently discard this notion, and re-assert that the causes of congenital deformities are, especially, arrest of development and spasmodic action.

The *causes of non-congenital deformities* are various. Here, again, as in congenital deformities, irritation of the nervous system is the prevailing cause. But, also, local inflammation and debility are very frequent causes of non-congenital distortions.

During infancy spasmodic action is very frequently occasioned by dental and by intestinal irritation. Indeed, irritation of the sympathetic system of nerves through errors of diet, worms in the alimentary canal, retained feculent matter, &c., is often seen to give rise to spasm and convulsions. These forms of irritation are common during infancy, and they constitute at this period the most frequent causes of spasm and of paralysis. Other causes of cerebral congestion and irritation of the spinal system of nerves exist, such as exposure to the sun's rays, the incubation of the exanthemata, a renal calculus, an insufficiently strangulated nævus; and, indeed, there is scarcely a condition of body that can be named, apart from health, in which convulsions may not be induced. Carpo-pedal spasm may exist without cerebral disturbance; but when irritation is continued, convulsions follow, with, perhaps, paralysis or death.

Spasmodic action is sometimes caused by pressure upon the head of the infant during birth. The deformities which arise

from this cause are doubtless frequently not distinguished from those which have been previously alluded to as congenital distortions. But it should be fully understood that tonic rigidity of a limb or a pair of limbs (for the most part the lower limbs) or of the entire voluntary muscular system, results from some injury at birth, such as is sustained by the brain and the brain-case, or by the vertebræ and the spinal cord, by too much force in the application of instruments, or, without instrumental interference, when much violence is used, with or without deformity and contraction of the pelvis. In these cases the flexors and the adductors of the thighs, the flexors of the legs, and the extensors of the feet, are for the most part affected. The upper limbs are usually less affected than the lower, yet the elbows will probably be found partially flexed, the forearms pronated, and the fingers wanting in power. The muscles of the neck are also in these cases deficient in power, and unable to support the head, so that the head rolls from side to side, and falls on to the breast or backwards. In the same manner the muscles of the trunk participate in the general weakness, and the child is in consequence unable to sit upright. In children thus affected there is also occasional or constant strabismus, and often the muscles of speech are involved: in some a cry only can be uttered, in others a syllable, while in others violent stuttering will be induced on the slightest provocation, or almost without apparent excitement. Thus, a single muscle, or a set of muscles, or the entire voluntary muscular system, may be affected, and endless varieties of deformity are produced.

Such, then, are the forms in which spastic contractions are seen during infancy. Together with these spastic conditions of arms and legs, there will probably be found abnormal conditions of feet and hands; indeed, every known form of talipes and cheirismus is to be found together with these rigid limbs.

When convulsive action has once been developed, spastic contraction may ensue, or a limb may be wholly or partially paralysed. The countenance of the child usually indicates the presence of cerebral disturbance: there is a vacancy of expression, and the child remains dull and listless, or otherwise it is excited. These children are, however, frequently more intelligent than a casual observer might suppose. Frequently the memory is good and the mind active (although always more or less morbidly excited), notwithstanding that the fingers and feet are almost, if not quite, useless.

Spasm of one limb, and paralysis of the opposite limb, may be observed. Spasm usually is first developed in the upper, and later in the lower, extremities. It is often stated otherwise; but observation shows that in spasm the lower limb recovers power sooner than the upper; but that, when paralysed, the upper extremity usually first recovers power.

After a succession of slight convulsive attacks, certain muscles remain, perhaps, rigid; the most powerful being the most affected, or appearing to be most affected. Thus the thighs are more or less flexed, and the knees are approximated; or even the legs are crossed one over the other, and maintained so firmly in this position that considerable force may be inadequate to separate them: the legs are flexed, and the feet are extended and inverted. Also, the arms are bound to the sides, the forearms are flexed, the hands are prone, and the fingers are flexed. Every form of squinting may be observed together with these rigid muscles; and, indeed, every voluntary muscle may equally be subject to this spasmodic action.

As has already been said, this state of spastic rigidity may pass into paralysis. In the cast which I now show you (a cast in St. George's Hospital museum), there is represented almost every possible deformity to which spastic rigidity can give rise. Disease in this case was developed in infancy, and was continued with increase and never with mitigation until death, which occurred at twenty-five years of age. Any drawing can only give a very imperfect idea of the case: the accompanying woodcut was made by Mr. Bagg from the cast. Here are seen talipes varus, talipes valgus, contractions of the knees, hips, elbows, wrists, fingers, and toes, wry-neck, and lateral curvature of the spine.

Again, in the adult, affections of the sexual and the urinary organs occasion disorders of the brain and spinal cord, and give rise to deformities such as I have to bring under your notice. Thus hysteria occasions spasmodic contraction. You will remember such a case in Wright's ward. Jemima U——, a remarkably stout person, twenty years of age, had been affected with spasmodic varus for three years before she was admitted into the hospital. Splints and medical treatment were tried ineffectually; and it was then determined to divide the tendons. You will remember how the inversion of the

FIG. 1.

foot was immediately removed on dividing the tibialis posticus tendon, the antagonistic muscles being allowed for a moment to act upon the foot. Subsequently the tendo Achillis was divided, and in six weeks the patient left the hospital perfectly cured. We see her occasionally here, and are able to observe that there has been no return of deformity. In cases such as this there has possibly existed some congestion of the spinal cord, which, having subsided, leaves the deformity as a local affection, dependent alone on structural shortening of the affected muscles. But not only may a hand, or a foot, or an arm, or a leg be thus affected; but one side of the body or the entire muscular system may be involved.

(To be continued.)

CLINICAL NOTES.

III.

COMPLEX MORBID CONDITIONS: CEREBRO-SPINAL IRRITATION; HYPERÆSTHESIA; INTERMITTENT SYMPTOMS.

BY S. O. HABERSHON, M.D.,
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THE relation of different kinds of morbid action in the same person constitutes one of the most interesting and important branches of clinical science. Thus a strumous patient may become the subject of syphilis, and the latter malady is more obstinate on account of the presence of the former condition; but to this may be superadded miasmatic poisoning, or rheumatism, or some acute zymotic disease; and in the aggregate of the symptoms—the actual state found at the bedside of the patient—we have to do with the complex resultant of several disturbing conditions. In many maladies, what may seem at first to be merely the superaddition of one morbid state upon another, is really the further development of the primary ailment in its successive stages. An instance of this complex condition was strikingly shown in a patient lately under my

care in Guy's, a man of middle age, who had worked at Woolwich, but had more recently suffered privation from loss of employment; he previously had syphilis and ague, and his health had also been deteriorated by intemperate habits. A short time before admission, about ten o'clock at night, he fell down on Plumstead-common, apparently in an epileptic fit, and remained on the ground all night till seven in the morning; and this fit was followed by severe bleeding from the nose. He was brought to the hospital in an anæmic state; the face was puffy, the legs slightly anasarcous, the pulse compressible and thrilling; there was no bruit at the heart, the bowels were freely acted on, and the urine was highly albuminous; he stated also that he had recently passed portions of tapeworm. He was ordered the extract of the male fern; but although there was free purgation, no tænia was brought away. After a few days, severe and unmistakable gout came on, which was followed a week later by erysipelas of the head and face. The symptoms slowly subsided, and he left the hospital a month later, convalescent.

We rarely observe such a series of ailments in one patient,—syphilis, ague, epilepsy, epistaxis, albuminuria, tapeworm, gout, erysipelas. But it would be quite incorrect to regard them as so many different diseases assailing the same unfortunate man. On the contrary, several were the sequences of one pre-existing morbid state: the syphilis, and ague, and intemperate habits had induced chronic disease, especially affecting the kidney, aggravated by a disposition to gout; but the epilepsy, the epistaxis, and the albuminuria, were merely the effects of that chronic disease; the tapeworm was a coincidence, and the erysipelas was probably due in some degree to the less pure atmosphere of the hospital. Still, it is not usual to find an instance in which so many causes of disease are united, and the one had certainly a modifying influence upon the other. In the following cases there was unusual irritation of the spinal nerves, as shown by hyperæsthesia; but the disease resembled rheumatism, and was intermittent in its character, suggesting miasmatic poisoning. It is not, however, very unfrequent to find intermission in the symptoms of functional disease of the nervous system, and this was, I believe, the especial character of the following cases.

Cerebro-spinal Irritation; Hyperæsthesia.

John B——, aged twenty-eight, by trade a wool warehouseman, was placed under my care on Jan. 8th, 1868. He had suffered from rheumatism three years before, but had had neither syphilis nor ague. His illness commenced nine days previously with rigor and cough; a severe attack of pain half an hour after retiring to rest was followed by a second still more severe. On the following morning he was unable to move, and had dry cough, with severe pain in the left side, in the back, and in the chest. He was confined to his bed, and suffered from dyspnœa, headache, and delirium during the night, with thirst, loss of appetite, and diarrhœa.

On admission he presented the appearance of a muscular man, but with a distressed expression of countenance, evidently from severe pain; the skin was cool, the temperature being only 98°, pulse 78, the respirations 57 per minute. There was a dry cough, and he complained of pain in the left side, in the ankles, knees, shoulders, &c. The pain, however, was not in the joints, or at a fixed part of the side, but on the whole surface of the limbs and side—a general hyperæsthesia. The pain in the chest was so diffused that on gentle percussion at any part he cried out with pain. Any pressure in the course of the spine produced especial expression of distress. There was diminished mobility of the chest, but no dulness on percussion. At the base of the lungs posteriorly there was slight pleuritic crackling, especially on the right side, but it was evident that this pleuritic disease was not the cause of the general hyperæsthesia. The tactile vibration was normal. The sounds of the heart were healthy in character. The urine was clear and abundant, specific gravity 1007, free from albumen, &c. He was ordered ten grains of compound ipecacuanha powder three times a day.

On the following day, the 9th, the pain in the course of the spine extended to the head; it was increased whenever the bowels were acted upon. The respiration was 36, the pulse 82, the temperature 98·5°. There was no delirium; the urine as before.

10th.—He was found in the afternoon in a state of free perspiration; the respiration 22; the pulse 75; the left knee was painful, but not swollen; the tongue had a whitish fur. He was ordered quinine in effervescence.

On the 15th, the same afternoon perspiration still persisted, preceded by some chilliness in the morning. The temperature was never above the normal standard, and the urine continued of the same low specific gravity. The patient said that he felt better, and there was much less severe pain and hyperæsthesia. But since the paroxysmal attacks continued, although three grains of quinine were given several times a day, he was ordered to take liquor arsenicalis with decoction of bark. Under this treatment he steadily improved, and left the hospital on Friday, the 18th, well.

The occasional occurrence of acute meningitis of the cerebro-spinal membranes led us at first to suppose that we had such a case before us; for the symptoms were acute and severe, the pain on the surface of the skin intense, the hyperæsthesia was almost general, although especially marked in the course of the spine and about the chest; there was severe headache, and there had been some delirium. The evidence of slight pleuritic affection would not account for the symptoms. Still the lessened temperature of the surface, scarcely that of the normal standard, and the abundant urine of low specific gravity, indicated an ailment of a non-inflammatory or febrile character.

For the same reasons the idea of severe rheumatism was also set aside, although the state of free perspiration in which he was generally found at the time of my visit, and some pain in the knee-joint, favoured the idea of a rheumatic affection.

After a few days, it was noticed that a sensation of chilliness in the morning was followed by afternoon perspiration. This condition suggested the question of miasmatic poisoning, or of abscess. Careful examination was made as to any local suppuration about the pelvis, perineum, or elsewhere, but without finding any local disease. As to ague, he had resided in Bermondsey, but there was no enlargement of the spleen, and no well-marked paroxysm of intermittent fever could be made out.

If the patient had been a female, the symptoms would have been at once referred to hysteria, or to cerebro-spinal irritation from uterine disturbance. We are compelled to recognise a condition of a similar kind in men; sometimes, it may be in more advanced years, from prostatic or vesical disease, the whole cerebro-spinal system is disturbed, and with some patients the symptoms assume a paroxysmal character, closely resembling intermittent fever.

The patient was ordered at first quinine in effervescence, afterwards decoction of bark, with Fowler's solution; the symptoms at once became less severe, and he steadily improved, leaving the hospital well after a few weeks. Are we, therefore, to consider the ailment as one produced by miasmatic poisoning? Not necessarily so; for although ague is often associated with disturbance of the nervous system, still the symptoms are observed quite independently of such an exciting cause, and, as far as our knowledge at present leads us, they must be referred to functional disease of the cerebro-spinal system.

Cerebro-spinal Irritation; Hyperæsthesia; Pain in the Calves of both Legs.

Robert T——, aged thirty-three, a resident of Woolwich, was placed under my care on March 21st, 1868. In his occupation as a shipwright he was accustomed to stand much in the wet; but, excepting an attack of gonorrhœa, with suppurating bubo, he had enjoyed good health till a fortnight ago, when both legs became weak, and severe pain in the calves of the legs came on. The pain increased in severity, so that he could not bear any pressure. Two days before admission he had some pain in the back, but none in the joints, and no symptoms of disease about the heart or lungs, liver or spleen, were present. The tongue was white; the pulse increased in frequency; the temperature was 102°. The bowels were freely open; the urine contained abundant lithates. The countenance was anxious, and the patient was greatly distressed. He stated that he had had rigor, but had experienced neither injury nor fall. He was ordered nitrate of potash mixture, and the legs to be wrapped in cotton wool.

March 24th.—The legs were still very painful; the skin perspiring and clammy. The patient stated that he had a rigor every afternoon, and perspiration every night. There was no enlargement of the spleen, and no local swelling could be found. The tongue was clean, the pulse quiet, the mind clear and collected. Two grains of quinine were ordered three times a day.

On the 26th, there was less pain in the calves, but slight swelling of the knee and ankle; the right ankle had on the inner side a circumscribed purpurous patch, and in the centre, loose skin, as from the remains of a bleb.

28th.—The symptoms steadily lessened; and on

April 3rd, he was presented convalescent.

In this case the pain in the calves of the legs was very severe, and spinal disease, pyæmia, local suppuration, arteritis, rheumatism, were considered as possible causes. There was no evidence of local disease affecting either the arteries or veins; no indication of local suppuration, or of pyæmia. As to rheumatism, there was some pain in the knee and ankle, as well as in the back, but these were scarcely mentioned as compared with the pain in the calves of the legs; the pain was quite on the surface of the skin, and no pressure could be tolerated. There was evidence of some febrile disturbance in the elevated temperature, frequent pulse, and furred tongue. Another fact observable was perspiration every evening, preceded by rigor. The patient had come from Woolwich, but there was no enlargement of the spleen, and he denied ever having had ague. The legs, as far as the knees, were wrapped in cotton wool, and on removing the wool in two or three days, the remains of a large bleb were found on the right ankle, with a purpurous condition of the surrounding skin. Whilst it is to be admitted that in rheumatism the cerebro-spinal system is always more or less affected, and this patient had been exposed to the exciting causes of that disease in standing in damp and wet places, still the condition was not that of ordinary nor fascial rheumatism; and I believe the condition was correctly referred to disturbance of the spinal cord. Many instances of organic disease of the spine are regarded in the earlier stages as ordinary rheumatism.

The paroxysmal exacerbations do not seem to oppose such an idea, nor need we necessarily refer the benefit following the use of quinine to a miasmatic type of disease. Intermissions are not limited to fevers produced by marsh poisoning, and quinine is applicable to other states than ague. We must not, however, lose sight of the fact that previous exposure to miasmatic poisoning will induce periodicity in subsequent disease, as we observe in bronchitis and pneumonia, in aguish districts, and after intermittent fevers, as if the disease had a quotidian or tertian type; so it may have been in these patients, who were apparently the subjects of functional disease of the spinal cord. The modification of disease by a pre-existent morbid state is a fact so frequently presented, and of so great clinical importance, that we cannot too strongly dwell upon it.

Brook-street, W., September, 1868.

STRUCTURE OF THE ADULT HUMAN VITREOUS HUMOUR.

By DAVID SMITH, M.D., M.R.C.S.

THE vitreous humour, constituting three-fourths of the globe of the eye, connects, both structurally and functionally, the crystalline lens and retina. It is enabled, by the union which subsists between its containing membrane in front—the zonula Zinnii—and the ciliary processes, to bring the crystalline lens under the control of the ciliary muscle in adjusting vision to different distances. It is the part from which the eyeball chiefly derives its firmness and globular form. Having an intimate union with the vascular organ of the eyeball, the choroid, and its surface lying in direct apposition with the vascular network of the retina, any disturbance which takes place in the nutrition of the deeper structures of the eye will diminish the transparency of the vitreous humour, and, as a consequence, the perfection of the eye as an organ of vision. It has a structure peculiar to itself, and therefore must have its own diseases, if they were only known. In some of the most important operations on the eye for the restoration of vision, the soundness of the structure of the vitreous humour is essential to their success. The vitreous humour, performing thus such varied and important uses within the eye, and taking an active part in its healthy as well as in many of its morbid processes, a correct knowledge of its structure must be an indispensable acquisition both to the physiologist and the ophthalmic surgeon. Nevertheless "its structure is unknown,"* according to one of the latest authorities, and until the appearance of the present publication has not been discovered.

* Mackenzie: Outlines of Ophthalmology; 3rd edition, p. 40. Also consult—E. Brücke: Ueber den innern Bau des Glaskörpers, in Müller's Archiv, 1843, p. 345; and 1845, p. 130. Hannover: Entdeckung des Baus Glaskörpers, in Müller's Archiv, 1845, p. 467. Bowman's Lectures on the Parts concerned in the Operations on the Eye, p. 94. Kölliker's Manual of Human Histology (Sydenham Society's edition), vol. ii., p. 868. Carpenter's Human Physiology, 4th ed., p. 255. Quain's Anatomy, 7th ed.; by Wm. Sharpey, M.D., F.R.S., Allen Thomson, M.D., F.R.S., and John Cleland, M.D.; vol. ii., p. 731.

Microscopic anatomy of the humour.—The almost perfect transparency of the vitreous body has all along been the chief impediment which anatomists have felt in investigating its structure. When it is examined in the fresh state nothing but a few processes and granules can be detected in it even with the highest magnifying power, and, therefore, no hope can be entertained of elucidating its structure without the assistance of reagents. Its minute structure may be demonstrated by removing a small fragment from the centre of the humour, (thereby avoiding any part of its containing envelope), and placing it on a glass slide, to which is then added a drop of concentrated alcohol. This has the effect of instantaneously rendering the tissue of the humour opaque. Thus treated and subjected to a low magnifying power, a network of reticular tissue is observed in the field of the microscope, dragged about in all directions from the commotion produced by the combination of the alcohol with the fluid of the humour. As this motion soon whips the delicate network of tissue into irregular ropy fibres, which no amount of maceration can again separate, it is necessary, in order to observe the structure more minutely, to cover it immediately after the addition of the alcohol with a thin pellicle of glass. Examined with a power of three hundred diameters the network of reticular tissue resolves itself into minute tubes or canals, intersected by cells at variable, but still very minute distances apart, thus establishing an anastomosis between cell and cell, as well as between the reticulations (Fig. 1 A). The tubes are about the size of the elements of connective tissue, and the cells about ten-thousandth of an inch in diameter.

FIG. 1.

A a a, Anastomosing cellular tissue of the vitreous humour. B b b, Strong, smooth fibres of the cortical portion of the vitreous humour. (Magnified 300 diameters.)

No matter what part of the vitreous humour is examined the same structure is observed; but in and near the circumference of the humour, and particularly near the zone of Zinn, another set of fibres is superadded. These consist of strong, smooth fibres, not unlike the fibres of common fibrous tissue, which form a coarse, open web, in the large meshes of which the finer network of anastomosing cells is woven (Fig. 1 B). These fibres are evidently for the purpose of giving strength to the humour in these situations.

Design of the structure of the humour as a whole, as seen with the naked eye.—The tissue of the vitreous body is entirely composed of an open meshwork, and nothing in the shape of membranes can be seen in it with the microscope. But the microscopic examination of the vitreous humour in detached portions can convey no idea of the design of its structure as a whole; and, contrary therefore to what might be anticipated from microscopic observation, the strong fibrous tissue, which exists only towards the circumference of the vitreous body, is discovered by the naked eye to be woven into membranes or membraneous strata, having a determinate direction within the humour, while the anastomosing cellular tissue, on the other hand, occupies the intermembranous spaces in the manner of loose connective tissue.

To demonstrate these membranes and the intermembranous tissue in their relative situations, it is necessary to have recourse to another method than that already described, for the purpose of rendering the parts opaque as a whole, in order that they may be seen *in situ* with the naked eye. Of the

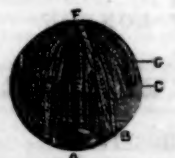
methods which may be employed for this purpose, the one most conclusive and least likely to embarrass the observer, is that which allows the tissue to become opaque from age, a small quantity of preservative fluid being used merely to prevent it undergoing the process of putrefaction. To accomplish this, the eyeball should be allowed to stand four or five days in water, when it is to be divested of its tunics, and the vitreous body, with the crystalline lens and capsule, entire, placed in a solution of carbolic acid, of about the strength of one of the latter to three hundred of water. At this stage the vitreous humour is of a straw-yellow or greenish colour, owing to the infiltration into it of the colouring matter of the blood, which somewhat masks the view of the fabric within; but in a few days the sanguineous colouring matter is disseminated into the surrounding menstruum, leaving the structure of the humour quite apparent to the naked eye.

A vitreous body, having been prepared according to the preceding directions, is to be placed in a wine-glass, or other eligible clear glass vessel, covered with water, and examined with the naked eye as the direct rays of the sun are condensed upon it by means of a convex lens. When so examined, the structures within the humour will be found to have the following arrangement:—

(*a*) Passing through the vitreous body from the point where the optic nerve pierces the eyeball to the posterior capsule of the crystalline lens, but inferiorly and internally to the axis of vision, is the hyaloid canal, which gave passage, in the embryonic eye, to the hyaloid vessels. It is not a constant structure of the adult vitreous humour, and in old age not a trace of it can be found. In some cases, however, it is not only present in the adult, but it remains patent through the whole of its extent, and in such cases, after the vitreous body has been macerated, is often seen to contain opaque granular matter, as if it still conveyed, during adult life, nutriment for the crystalline lens. The hyaloid canal has a diameter about that of a common probe, and, unlike the same structure in its primitive condition in the fœtus, it gives off no branches to the vitreous humour.

(*b*) Arising at right angles from, and surrounding the inner surface of, the zonula Zinnii, are eight or ten membranous circles, placed the one within the other; each circle, on close examination, being seen to be made up of a series of segments, overlapping and uniting by their edges—the arrangement not being unlike the origin of the leaves of a leaf-bud from a circular disc. Proceeding from this origin, these membranes take a course backwards to the entrance of the hyaloid canal, and in their course split horizontally the entire circumference of the humour into innumerable shallow cells, placed with their flat surfaces to the hyaloid membrane, which build up, layer upon layer, the sides of the vitreous body around the antero-posterior axis of the eye as a centre. (Figs. 2 and 3.)

FIG. 2.



Arrangement of the membranous strata within the human vitreous humour (natural size). A, Crystalline lens. B, Zone of Zinn. C, Hyaloid membrane. D, Cortical portion of the humour. E, Medullary portion of the humour. F, Hyaloid canal. G, Radiating fibres.

FIG. 3.

Origin of the membranous strata from the zone of Zinn (natural size). A, Crystalline lens. B, Extreme border of zone.

These membranes are made up of the strong, smooth, fibrous elements already referred to under the microscopic examination of the humour. When they are examined individually with the naked eye by the aid of the direct rays of the sun, they are seen to consist of a flimsy network of fibres, which, for want of a better name, I have called *membranes*, though they scarcely admit of being so classified; and though I have described as *cells* the compartments which the membranes enclose, they are incapable in any degree of limiting the fluid of the humour. The more superficial membranes, or those which take their origin from the extreme border of the zone of Zinn, have a coarser texture and web than those nearer the axis of the eye; and the former are also more bent in their course backwards, following the curve of the hyaloid membrane, in adaptation to the globular form of the vitreous body. In the vertex, or what may be called the medullary portion of the humour, I have not been able to detect any distinct membranous layers. Faint lines may usually be recognised running backwards in this situation; but they partake of none of the characters of a membrane. Moreover, the central parts are devoid of the strong fibrous tissue which forms the basis of the membranous strata of the cortical portion of the humour.

(*c*) As to the anastomosing cellular tissue, it occupies the medullary portion of the humour behind the crystalline lens and the spaces between the membranes, in the manner of intercellular tissue. It is woven into cellular spaces as receptacles for the vitreous fluid. The filaments of this tissue cross the short diameter of the intermembranous spaces, and therefore they have a radiating direction from the vertex to the sides of the vitreous body (Fig. 2); but, inasmuch as they are finer than the fibres of the membranous strata running from before backwards, they are not so apparent to the naked eye in the prepared specimen. In fact, the intermembranous spaces look to the naked eye as if they merely contain a transparent fluid—a fallacy which is only dispelled by observing them minutely as the direct rays of the sun are thrown upon them, or by touching them with a blunt instrument.

Thus it will be found that while the membranes of the vitreous body are stretched between the zone of Zinn and the fundus of the eye, the anastomosing cellular tissue radiates from the vertex to the sides of the humour—an arrangement which offers the best provision for the prevention of undue distension of the hyaloid membrane from the accumulation of fluid within. It is also not unworthy of note that the membranes, being the strongest fabric of the two, offer the greatest resistance to distension in the direction in which it would be most injurious to vision—namely, in the direction of the axis of the eye. The crystalline lens and retina are by such an arrangement maintained at a fixed distance from each other; and the delicate retina is also protected from undue pressure, between the hyaloid membrane, on the one hand, and the unyielding tunics of the eyeball, on the other.

Such is the structure of the vitreous humour in the adult human subject. It is so fragile, and the proportion which it bears to the vitreous fluid is so small, that it is scarcely to be wondered at that it has escaped notice so long. Its weight makes no appreciable difference in the specific gravity of the fluid of the humour, which is 1053; for if the fluid of the humour be allowed to drain away, the residue, inclusive of the zonula Zinnii, hyaloid membrane, and posterior capsule of the crystalline lens, does not amount to one grain.

The fluid of the vitreous humour.—The fluid which occupies the meshes of the vitreous tissue gives to the humour its solidity, as well as its pellucid and highly transparent quality. It has a consistence intermediate between water and the serum of the blood. Of the organic constituents of the blood, the only one which it contains, and that even in very small amount, is albumen. According to Berzelius, the healthy vitreous humour has the following chemical composition:—

Chloride of sodium, with a small quantity of extractive matter soluble in alcohol ...	1·42
Matter soluble in water	0·02
Albumen	0·16
Water	98·40
	100·00

Millon and Wohler have discovered traces of urea in the fluid of the vitreous humour.*

The fluid of the vitreous humour is chiefly secreted by the ciliary processes; but pathological observation renders it probable that the vessels of the retina take some share in the same process.† Intervening between the substance of the humour and the ciliary processes is the zone of Zinn—a part of the containing envelope of the vitreous humour,—which is a structureless membrane, giving off internally the peculiar structure of the vitreous humour, and externally strong fibres, which bind it firmly down to the ciliary processes.‡ The two structures are dovetailed into each other—a highly favourable relationship for the secretion of the vitreous fluid. Through the structureless membrane of the zone of Zinn the vitreous fluid filters in its way to the humour; but, like all other cases in which secretion takes place through membranes without the

* Carpenter's Human Physiology, 4th ed., p. 56.

† Bowman: Lectures on the Parts concerned in the Operations on the Eye, p. 125.

‡ The structure of the zone of Zinn, as here stated, will be demonstrated in a course of lectures on the Eye which it is my intention to deliver in Glasgow during the ensuing winter.

intervention of cells, the vitreous fluid consists merely of the permeable constituents of the blood. The zone of Zinn seems likely to exercise some influence over the transparency and decoloration of the vitreous fluid during life, for after death the power to resist the coloured constituents of the blood is lost, in consequence of which the vitreous body soon becomes coloured greenish-yellow. A moderate amount of heat also relaxes this membrane so as to facilitate the transudation of fluids through its walls, and consequently inflammatory action of the neighbouring structures will probably have the same effect. It is impossible to say whether, under ordinary circumstances, the secretion of the vitreous fluid is rapid or slow, but a large quantity is known to be thrown out when occasion requires, as when some of it has become evacuated by accident. In such cases, however, the structure of the humour will seldom be reproduced in the fully developed eye.

The fluid escapes so readily from the humour that it has become a problem how nature effects its retention. As will have been observed from the description which has been given of the structure of the humour, it is such as to afford ample facility for a free and rapid circulation of the fluid through its substance; and therefore any force inherent in the tissue itself, such as capillary attraction, can have very little effect in holding the fluid in its meshes. Its retention is readily accounted for by the limited permeability of its enveloping structure—the hyaloid membrane—during life. Even after death, when that membrane has lost much of its resistance to permeation, if the vitreous body be exposed entire, the fluid will take some days to drain away, while a few hours is sufficient if the hyaloid membrane has been lacerated. From the natural firmness of the vitreous body, the retention of the fluid has been accounted for by those who deny that the humour is possessed of any structure, by the fluid in its normal condition having a certain consistence resembling jelly, in which case its exhaustion could only arise from the substance of the humour passing from the semisolid to the fluid condition. This is disproved by the fact that the fluid of the humour can be replaced by any other fluid, such as pure water, spirit, or glycerine, merely by imbibition, and the vitreous body still retain the same physical properties.

The physical properties of the humour.—Of the physical properties possessed by the vitreous humour, the most important (if we except its transparency) is its *elasticity*. This force is present in the humour in a high degree; for if the crystalline lens be dislodged, and the posterior capsule cut away under water, the tissue behind swells up and protrudes through the breach—a fact which gains importance from the relation which these parts have to the operation of extraction of cataract. The elasticity of the vitreous tissue enables it to tighten upon the contained fluid, gives the eyeball a healthy tension, and offers such a firm bed for the crystalline lens as to prevent the slightest vibration of that body, and consequent aberration of vision during the motions of the eye in the living subject. By the same agency the vitreous body is enabled to become a fulcrum on which the ciliary muscle acts in advancing the ciliary processes towards the crystalline lens in the accommodation of the eye to near objects. It is also not improbable that the same force exercises in some degree a controlling power over the secretion of the vitreous fluid, in the same way that the endosmotic current, in the ordinary process of absorption, diminishes in the ratio of the distension or resistance of the vessels. If this be the case, the injurious consequences to vision resulting from the loss of the elasticity of the vitreous tissue can scarcely be over-estimated.

The nutrition of the humour.—As the vitreous body does not possess any function of a vital nature, and as it has a temperature amongst the lowest of any organ in the body, it is evident that it must undergo little decay, and exercise little demand over the nutritive forces for its renovation. Nevertheless, though it be a non-vascular body, and though the greater part of it be remote from the sources of the circulation, as it is known to undergo various rapid changes in disease, it must possess a proper system of nutrition within itself. In the absence of all other evidence of a nutritive system within the humour, the cellular elements described under the microscopic anatomy of the humour probably contain nutritive materials; and the anastomosis which exists between cell and cell—to adopt the language of Virchow,* on an analogous nutritive system in Wharton's jelly of the umbilical cord,—"renders possible a uniform distribution of the nutritive juices throughout the whole of its substance." The small amount of albumen which exists in the vitreous fluid is incapable in its crude state of being applied to the nutrition of the fabric of the humour, and therefore the ciliary processes, as the organs of secretion of the vitreous humour, have probably less reference to the nutrition of its structures than the supply of an abundant and highly transparent fluid for mechanical and physical purposes.

(To be continued.)

* Cellular Pathology, p. 100.

ON CARBOLIC ACID COLLYRIA IN STRUMOUS OPHTHALMIA.

BY EDWARD C. MARKEY, Assistant-Surgeon.

OF all diseases of children we meet with in India there are few more troublesome as regards treatment than strumous ophthalmia, more particularly towards the end of the hot season, when the general health has become seriously impaired, and when, in addition, glandular enlargements exist. I may here state that the heat this season has been greater than for years past.

I have lately had two children, aged two and four years respectively, under my care for strumous ophthalmia. Their general health had become much impaired from residence in the plains during the hot season, added to which the cervical glands were considerably enlarged. The eye affection proved most rebellious to treatment, both local and general. I had, in fact, given up all hope of curing them in the plains.

In looking over a recent number of THE LANCET (20th of June, 1868) I observed that Sir H. Thompson, in his admirable lectures "On Diseases of the Urinary Organs," recommended an injection of carbolic acid in certain cases of chronic cystitis. It struck me that a lotion somewhat similar might prove beneficial in the cases of ophthalmia, and I prescribed the following as a collyrium:—Carbolic acid, one drop; glycerine, five drops; rose water, one ounce. The result proved most satisfactory. I am not aware that any reference is made to carbolic acid collyria in books. Its well-known antiseptic properties would, I think, be sufficient inducement to give it a trial, more particularly in epidemic forms of the disease, and I therefore beg to recommend it to the notice of the profession.

Shajehampore, N.W.P., India, 29th July, 1868.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ROYAL FREE HOSPITAL.

A DESCRIPTION OF SOME RAILWAY INJURIES NECESSITATING PRIMARY AMPUTATION; RESULTS.

(Under the care of Mr. JOHN D. HILL.)

IN his clinical experience of railway injuries, Mr. Hill finds that, as a rule, they differ from many other lesions with respect to the amount of shock and general concussion of the body, and in their local severity and extent. Perhaps the former, he thinks, may be explained by the kind of force or power which gives rise to such accidents; and, assuming this to be the case, it will be easily understood how the range of steam pressure, or, in other words, the speed of the locomotive, regulates the degree of shock and general concussion of the body; while the latter, which is most frequently produced by the wheel of the train, is in most cases severe, whatever be the speed. It may therefore be premised that shock and general concussion, when associated with local injury, will materially influence the issue of all cases in which surgical aid is indicated, and (except where uncontrollable hæmorrhage arises)

will to a great extent guide the surgeon in selecting the most favourable time for operative assistance. Of the following cases, in one instance shock and general concussion were so severe that the patient remained in almost a lifeless state for several hours. In another instance shock was comparatively slight. Again, in a third (which we shall publish next week) general concussion was so great that death rapidly ensued, and when the body was inspected, the capillary vessels were found ruptured, not only in all the internal organs, but throughout the muscular system; and yet in each case the local injuries were very severe. Now the wheel of the locomotive has a projecting flange, which overlaps the inner border of the rail. This is a terribly destructive agent, for in crossing the limb it not only smashes it, but often tears muscles from their fixed points or detaches their tendons. Sometimes it lacerates or ruptures the main arteries and veins, and (more rarely) the nerves at a distant part of the affected limb. Beyond the actual wound communicating with the bone, the integument is occasionally separated, more or less, from the deep fascia by effused blood, or is otherwise lacerated and bruised. Lastly, the periosteum and medullary membrane are sometimes damaged to such an extent that necrosis ensues after amputation. Now, as to complications, they may arise from a variety of circumstances, but independent of atmospheric, zymotic, idiopathic, or accidental causes. The cases under consideration will exemplify those depending chiefly upon the direct consequences of general and local injury.

The first case represents general concussion, extreme shock, and extensive local injuries, followed by complications chiefly of a local origin.

CASE 1. *Compound comminuted fracture of tibia and fibula; (primary) amputation of right thigh; trismus arrested by (secondary) amputation of left leg; recovery.*—Charles S——, aged eighteen, by occupation an engine foreman, of healthy constitution, was admitted into the Royal Free Hospital on August 20th, 1867, at 6 P.M., having been knocked down and run over by a train in rapid motion. On admission, he was found deathly cold, pulseless, and blanched; the respirations were scarcely perceptible; pupils dilated; skin covered with cold sweat; and he could hardly be roused.

Examination of injured limb.—Right leg: From the lower fourth of the leg to the upper border of the patella there was a wound eleven inches in extent; integument in greater part detached and hanging loosely to the posterior aspect of the limb; muscles lacerated; gastrocnemius, soleus, and plantaris torn from their origin; tibialis anticus ruptured; vessels and nerves (anterior and posterior tibial and peroneal arteries and veins) severed. The bones were broken into small pieces, and begrimed with dirt. From the subcutaneous surface of the upper fragment of the tibia the periosteum was torn off towards the knee.—Left leg: A wound, three inches in extent, communicated with a comminution of the tibia and fibula in their middle third. The soft parts were boggy and emphysematous as far as the knee; integuments above the knee separated from the fascia by effused blood; tibialis anticus torn across; extensor longus digitorum tendon detached from muscle; main vessels and nerves intact.

Treatment and progress.—Having guarded against hæmorrhage by securing the vessels in the right leg, Mr. Hill decided to wait for reaction. The shattered limbs were placed upon two well-padded splints, on a plane inclined from heel to hip, and stimulants freely given, followed by an opiate at night.

Aug. 21st.—Although he passed a restless night, fair reaction had set in by 9 A.M. Pulse 100, soft and compressible; skin warm and moist; tongue coated; respiration 25 per minute; pupils act; bowels open. Has passed water; the urine scanty, and loaded with purpurates and lithates. His condition now being more favourable, chloroform was administered, and Mr. Hill amputated the right thigh in its lower fourth by the circular method. The integument when divided was found bruised and somewhat detached from the deep fascia by gelatinous lymph and clotted blood, and small clots were here and there scattered throughout the muscular tissue. As the temperature of the left leg was good, and the vessels intact, an attempt was made to save it.

23rd.—A good deal of reactionary fever has now set in; the pulse has risen to 135, is small and compressible; respiration 40 per minute; face flushed; urine very scanty, and high-coloured, and of specific gravity 1035; bowels confined; skin hot and dry; tongue coated; and he complained of headache, thirst, and a sensation of sickness. Nevertheless, there is some primary union in the stump. Left leg is freely suppurating: to be dressed every four hours. Ordered half an ounce of castor oil immediately. Diet—beef-tea, milk, eggs, and wine, twelve ounces daily.

25th.—Acute cellular inflammation has now attacked the left leg. Fever abated; bowels well relieved; pulse 110; respiration 28. Stump looks healthy, although it shows a tendency to retraction. Prescribed mixture of quinine with iron, one ounce thrice a day.

27th.—Above and below the knee several abscesses have formed. Pulse 108, stronger; general condition improved; abscesses opened, and poulticed with linseed meal.

31st.—Pulse 110; respiration 30. The left facial muscles have become tetanic, and the risus sardonicus is well marked. In a few hours the left masseter, temporal, sterno-mastoid, and constrictor muscles of the pharynx became rigidly contracted, so that he was unable to open his mouth without the greatest difficulty. Opiates were freely given, combined with quinine and tincture of bark, and for the few following days food was administered partly by the rectum and partly by the mouth, through a gap caused by the loss of a front tooth.

Sept. 2nd.—This morning a large quantity of pus was let out from the seat of fracture in the left leg. The bone is extensively denuded of periosteum.

5th (fifteenth day after operation). — All ligatures have now separated from the stump. Wound is slowly healing around bone, which protrudes and is necrosed. Wound in left leg is discharging profusely.

8th.—Trismus is persistent, and from the combined influence of nervous irritation, excessive discharge, and inability to take sufficient sustenance, his health is declining. Therefore it was decided to amputate the left leg below the knee. Chloroform having been administered, Mr. Hill commenced the operation by making a long external skin-flap, and a short internal one, in order to secure sufficient covering for the bone, which was sawn through just below the tubercle of the tibia. The tissues were matted together, and very unyielding; dense bands of tissue connected the muscular fascia with the integument. The muscles were pale and atrophied, and the vessels small and contracted. After completing the operation, with a free incision on the outer surface of the opposite stump (which was conical) Mr. Hill laid bare the bone, and sawed off three inches. In eight hours after the operation all symptoms of trismus had passed away, and he slept tolerably well during the night. From this date his progress was slow, but on the whole satisfactory. Retraction of the tissues, however, occurred to a marked extent in both stumps, followed by necrosis.

At the end of six weeks, two inches and a half of bone further exfoliated from the right stump, and after this the wound gradually closed, leaving the stump with the appearance of an amputation having been performed in the upper third of the thigh.

The ligatures separated from the left stump on the fourteenth day, and several portions of bone were cast off during the healing process; subsequently, however, sloughing of the flaps and effusion into the knee-joint ensued, which somewhat protracted his recovery. He was discharged in good health, and with very fair stumps, on January 24th, 1868.

Mr. Hill made a few remarks as to the surgical treatment and progress of this case. The necessity for primary amputation of the right thigh was unquestionable, and by delaying the operation for reaction, probably the patient was afforded the best chance of survival. Now trismus was induced and kept up through mechanical irritation of the nerves by the necrosed bone,—hence its subsidence when the limb had been removed. Retraction of the stumps and necrosis were, he said, possibly due to the injury which the muscles, periosteum, and medullary membrane had respectively sustained; and lastly, it was more than probable that the general concussion of the body, and shock to the nervous and vascular systems, had rendered the reparative process slow, through the enfeebled processes of secretion and assimilation.

The next case illustrates severe and extensive local injuries attended with a minor degree of shock.

CASE 2. *Compound comminuted fracture of left tibia, fibula, radius, and ulna; primary amputation of thigh and upper arm; recovery.*—Thomas G——, aged thirty-three, by occupation a railway porter, of previous good health, was admitted into the hospital on August 22nd, 1867, at 1 A.M., having been knocked down and run over by a train in slow motion. He was quite sensible, gave a clear account of the accident, and the shock was slight. His left forearm was smashed in its upper third, and the left leg below the knee; and in both instances the integument was injured higher up. The remains of the shattered

extremities were attached only by shreds of skin and muscle. The vessels and nerves were torn across, and the bones comminuted.

Mr. Hill forthwith performed primary amputation of both members immediately above the elbow and knee joints respectively: in the case of the thigh, by the antero-posterior flap; and in that of the arm, by the oval method. In both cases he secured sufficient integument to saw through the cancellated structure of the bones. There was very little constitutional disturbance after the operations; and, except a little sloughing in both stumps where the integument had been bruised, the man had not a bad symptom. The brachial ligature separated on the thirteenth, and the popliteal on the seventeenth day. By granulation the stumps slowly healed, and he was discharged in good health on the 21st November.

The injured extremities were literally smashed, and little more could be said about them. But one fact as to the vessels deserves notice: in both instances the arteries and veins were torn across, and, on tracing them out and opening them, plugs of coagulum were seen to extend from the proximal end of the ruptured tibial to the popliteal artery, and from the radial and ulnar to the brachial artery. The veins also were plugged in a minor degree.

The treatment consisted in a generous diet, with ten ounces of wine and two pints of stout daily.

The points of interest may now be briefly summed up. The slight amount of shock and general concussion, as compared with the severe nature of the injuries, may be attributed to the slow speed at which the train was moving at the time of the accident. In this, as in all other cases, it was decidedly the best surgery to diminish further shock by amputating as near to the injured extremities as possible, and rather to exercise a little ingenuity in getting integument for a covering, for the advantage of sawing through the cancellated structure of the bones; thus the danger incidental to opening the medullary canal was avoided. As in the preceding case, the integument was found injured higher up than the external appearances at first indicated.

We propose next week to conclude this series of cases.

UNIVERSITY COLLEGE HOSPITAL.

A CASE OF HERPES ZOSTER.

(Under the care of Dr. RINGER.)

AN interesting case of herpes recently occurred amongst Dr. Ringer's out-patients, which illustrates in a marked manner the localisation of the eruption of this disease to the parts supplied by certain nerves. The patient was a girl of eighteen, and the group of vesicles occupied almost exactly that portion of the integument which is supplied by the second cervical nerve, and by the inferior maxillary branch of the fifth. The eruption was limited to the right side, and extended over the upper part of the anterior triangle of the neck, supplied by the superficial cervical nerve (of the second cervical); while one group of vesicles was situated behind the middle of the sterno-mastoid, in the position of a small branch which the superficial cervical usually sends backwards to the integument. The eruption extended over the whole of the space supplied by the great occipital nerve at the back of the head, and by the great auricular nerve behind and on the back of the ear (both offsets of the second cervical). One small group was situated on the antihelix, about the spot at which an offset of the great auricular pierces the ear; while a larger patch of eruption was situated over the angle of the jaw, corresponding to the branches which that nerve sends forward over the parotid. Over the portion of skin supplied by the inferior maxillary nerve the eruption was distributed thus: There was a group of vesicles near the angle of the mouth, corresponding to the labial branch of the inferior dental. The whole of the hairy scalp supplied by the auriculo-temporal was occupied by the eruption, and a group of vesicles on the lobule and lower part of the outer surface of the ear corresponded to the auricular branch of the same nerve. The only parts of the eruption which could not be referred to these nerves were some vesicles just above the border of the lower jaw, higher than the superficial cervical is usually supposed to extend, and two patches by the side of the last cervical and first dorsal vertebræ.

A similar case was in the hospital a few months ago, under the care of Sir William Jenner. The patient was a lad of seventeen; but in his case the eruption was confined to the integument supplied by the ophthalmic and superior maxillary branches of the fifth, the part supplied by the inferior maxillary being unaffected. The eruption was on the left side, strictly limited by the middle line, and affected the anterior part of the hairy scalp, the forehead, and the upper part of the face and side of the nose, being bounded below by the mouth and a line drawn from the angle of the mouth to the malar bone, an inch and a half in front of the ear. The eyelids were œdematous, and the conjunctivæ inflamed. Thus it corresponded closely to the cutaneous distribution of the supra-trochlear and supra-orbital and nasal of the ophthalmic, and of the orbital (temporal and malar) and infra-orbital branches of the superior maxillary.

The exact limitation of the eruption to certain nerves in these two cases seem to render them worthy of a detailed description.

ROYAL NAVAL HOSPITAL, YOKOHAMA, JAPAN.

A CASE OF EMBOLISM FOLLOWING PLEURO-PNEUMONIA; GANGRENE; AMPUTATION OF THE THIGH; RECOVERY.

WE are indebted to a correspondent for the following interesting case, and regret that the regulations of the service interfere with the publication of the names of the surgeons under whose care the patient made so fortunate a recovery.

A. B——, admitted from her Majesty's service Oct. 3rd, 1867. From the medical statement accompanying this man, it was found that he had been several times under treatment for trifling complaints during the past twelve months, and that on the 24th September, 1867, he was attacked with pneumonia of right lung. It appeared also that on the 1st October, severe pain being complained of in the right leg, a small firm tumour was discovered in the popliteal space, obstructing the circulation. On admission the following report was made of the patient: Countenance anxious, and indicative of suffering; breathing hurried and oppressed. He states that he has been ill frequently during the past twelve months for short periods, but notwithstanding he has always been considered a tolerably healthy man. Never suffered from rheumatism. Appears in very indifferent condition, and has evidently lost much flesh. Pulse 100, small; tongue coated; bowels regular; skin hot. There is considerable bulging of the right side, with other signs of effusion into the right pleura; also consolidation of lower lobe of lung. Complains of intense pain in the left leg, nausea, cough, inability to sleep, thirst, and want of appetite. Heart's action normal, sounds healthy. Has no feeling in left leg below the knee, and the part is cold and shrivelled. Toes have a dark sloughy appearance. There is a firm tumour, as above mentioned, completely obstructing the circulation below, and the impulse of the femoral is much less than in that of the other extremity.

On the 6th of October the leg was black and sphacelated; a line of demarcation had formed immediately below the knee-joint; and although the patient was so much reduced that serious doubts were entertained as to his surviving the operation, he was placed under the influence of chloroform, and the limb amputated about the junction of the middle with the upper third. There was no bleeding from the large vessels, and before applying ligatures a long clot was drawn out of each. About an inch and a half of lower flap and margin of upper sloughed, and for weeks after the operation there were many alternations (one time favourable, at others most unfavourable) in the condition of the patient. He, however, ultimately recovered, and left the hospital on the 14th of April, 1868, for England in perfect health, with a very good sound stump. The healing of the stump was much retarded by inflammation and profuse suppuration along the front of the stump, in the femoral sheath, and surrounding parts, as far as Poupart's ligament, no doubt produced by the obliterated femoral artery acting as a foreign body in the part. Pints of pus were discharged from time to time from this locality.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.—At the meeting of this Society, held on Friday, September 4th, in the Hall of the Faculty of Physicians and Surgeons, the following gentlemen were elected office-bearers:—President: Dr. J. G. Fleming. Vice-presidents: Dr. W. T. Gairdner, Dr. E. Watson. Council: Dr. Dewar, Mr. Tindal, Dr. G. H. B. Macleod, Dr. A. R. Simpson, Dr. Richmond (Paisley), Dr. F. Thomson, Mr. Torrance (Airdrie), Dr. H. Thomson. Secretaries: Dr. James Adams, Dr. R. Perry. Treasurer: Dr. H. R. Howatt.

Reviews and Notices of Books.

On Asthma: its Pathology and Treatment. By HENRY HYDE SALTER, M.D., F.R.S., F.R.C.P., Physician to Charing-cross Hospital, &c. Second Edition: Churchill and Sons. 1868.

THE competition of the present day can scarcely be looked upon as altogether favourable to the progress of philosophy or the cultivation of letters. Able men—men of original minds—often publish before they have really digested the subjects about which they write, fearful lest another should forestall them; and many men, who are scarcely entitled to be termed able or original, publish old views with new faces—books, that is, with new bindings;—the form without the substance. The telegraph and railway have influenced the age in more ways than one. A craving for that which is new, an ill-concealed impetuosity and impatience of laborious investigation, as well as a tone of exaggeration as to the importance of every new thing because it is new,—these are some of the characteristics of the age in which we live. When we open a medical treatise, we ask ourselves,—Has the author possessed the necessary opportunities for studying his subject? Has he the requisite powers of mind and observation to make what he has to say worth the saying? And, lastly, does he say it so clearly as to remove all doubt that he really understands his own meaning?

Our readers, however, will have begun to wonder what all this can have to do with a work on asthma. Just this: that let a book be written on any subject, you like to feel that its author has deliberately examined, arranged, and weighed the facts in his possession, and that his theories are capable of embracing and explaining them. In both these respects we think the writer of this treatise has been most successful. Of course, in a second edition, it was not possible to write a new book if the views propounded in the first were true; and, as Dr. Salter intimates in his preface, the fresh matter—of which there is a considerable amount scattered throughout the volume in almost every chapter—has been the result of an enlarged experience. The mass of facts, represented by the tabulated cases, is very much augmented, their number having been increased from 44 to 223; and the 15 narrative cases in the appendix, selected by the author for the purpose of illustrating various points in the clinical history and therapeutics of asthma, serve to give as good and faithful a picture of the diversified forms of this disease as it is possible to afford in a description, however graphic and life-like. We need not enter fully into those chapters which deal with the various theories of the disease that have been promulgated from time to time, or the pathology, clinical history, varieties, etiology, and consequences of asthma,—for our readers have already had the opportunity of perusing the author's lectures thereon; but we must content ourselves with picking up, here and there, a few of the more interesting and instructive points. *Imprimis*, and very shortly, What is asthma? It is essentially and, with the exception, perhaps, of a single class of cases, exclusively a nervous disease. It depends upon a spastic contraction of the fibre-cells of that unstriped variety of muscle of whose existence in the bronchial tubes minute anatomy has made us acquainted; the phenomena of the disease being mostly the result of an excito-motory or reflex action set up by the presence and action, either direct or remote, of an irritant affecting some part of the nervous system: the vice in asthma consisting, however, "not in the production of any special irritant, but in the irritability of the part irritated."

The chapter in which Dr. Salter unravels the difficult phenomena of an attack and assigns an explanation of them on physiological and rational grounds, appears to us a clear and convincing piece of writing; and the same may be said of the physiological argument in which the purposes of bronchial muscle are discussed in relation to inspiration, cough, and the expulsion of matters from the bronchial tubes.

The delineation of the appearance of an asthmatic in the height of a paroxysm is as good a specimen of graphic description as the explanation of the muscular phenomena—the physique, voice, and spinal curvature—is of correct physiological reasoning.

In speaking of the hæmoptysis of asthma, the quantity of the blood being generally not more than streaks and patches mixed with the mucus, Dr. Salter, in a foot note, takes up the consideration of Dr. Johnson's views as to the arrest of the pulmonary circulation not being in the capillaries, but in the small arteries behind them. If this be correct, it follows that the capillaries must receive less blood than usual, and cannot be the seat and source of apnœal hæmorrhage. Dr. Johnson gives the following ingenious explanation:—"Since, at whatever point in the pulmonary circulation the arrest took place, it would retrograde upon the systemic venous system, and since the bronchial veins are tributary to this system, it would ultimately retrograde upon them, and thus congestion and partial stasis would be produced, first of the bronchial venules, and then of the bronchial capillaries; and it is to rupture of these last vessels, and not of the pulmonary capillaries, that he would attribute apnœal hæmoptysis." This, according to Dr. Salter, explains both the source of apnœal hæmoptysis and the invariable sequence of bronchial mucous exudation upon any form of protracted partial apnœa; for that which would produce bronchial hyperæmia, even though passive, would necessarily produce an increase of the bronchial secretion. At pages 160 and 161 Dr. Salter has some further observations as to the seat and mechanism of the pulmonary stasis of apnœa in reference to Dr. Johnson's teaching.

The principal additions to the present edition are, however, to the therapeutical part; as, for example, the therapeutical effects of chloroform, administration of alcoholic stimulants, and the treatment of asthma by iodide of potassium. After speaking of coffee—which cannot be too hot and strong, should be without sugar or milk, and taken on an empty stomach,—the author proceeds to consider alcohol, of the value of which he has often seen striking instances. The drawback to its use, however, is that it must be given in large and increasing doses, and in a concentrated form, and, like coffee, hot.

Dr. Salter regards the inhalation of chloroform as one of the most powerful, as well as recent, methods of treating the asthmatic paroxysm. In thirteen cases in which he watched its employment, it did good in twelve, and in one positive harm. He regards the direct and immediate effect of chloroform as due to its unlocking the bronchial spasm, and setting the pulmonary circulation free, and he does not fear to use it in cases of organic heart disease. With regard to iodide of potassium, he says that, probably, in not more than one case in five is it of sufficient permanent advantage to be worth persevering in; but this amount of success is enough to warrant its trial in any case where this had not been fairly done, particularly as striking results sometimes attend its use.

We have not space to dwell longer upon this book, which contains an amount of information that can be obtained nowhere else; but we may call attention to some interesting cases of uterine asthma, and to others on the production of the disease by animal emanations. After all, the most curious circumstance connected with the disease is the way in which it is influenced by climate and locality.

Dover as a Health-Resort and Place of Residence; its Climate, &c. By CHARLES PARSONS, M.D. Edin. London: Churchill and Sons. 1868.

IN this pamphlet Dr. Charles Parsons, who is already favourably known to the profession by his paper "On a Form of Bronchitis peculiar to the Pottery Trade," discusses the climate

and surroundings of Dover and its suitability as a residence for invalids. "Taking St. Leonards, on the one hand, as an example of a soft, mild, and dry climate, and Brighton on the other, as being keen, bracing, and very dry, Dover may very fairly claim to be regarded as occupying an intermediate position between them both." This being a very satisfactory estimate, in our opinion, we advise those who are proposing to visit the east coast to consult Dr. Parsons' pamphlet, if they are desirous of learning all the facts upon which his recommendation of Dover as a resort for invalids is based.

REPORT

OF

The Lancet Sanitary Commission

ON

THE DRAINAGE OF BRIGHTON.

IT is exactly six years since we published a Report on the Drainage of Brighton, with a chemical and microscopical analysis of the sea and well waters. Since that period vast improvements have undoubtedly been made; and it is with great pleasure that we are enabled to commence our present notice with the mention of the very significant fact, stated in the last Registrar-General's report, that the mortality during the past quarter has been less than that of any corresponding quarter for ten years previous. It is clear that the town authorities, as well as the inhabitants generally, have received a considerable amount of sanitary education, and have profited thereby. But the awakening, although considerable, has, unfortunately, been tardy, and is not by any means complete. The mere residence of 80,000 or 100,000 people, even on the most admirable site, necessarily gives rise to a vast accumulation of refuse matter; and if, instead of taking effective measures to remove it from the immediate proximity of man, the authorities permit it for years to be systematically stored up in some 10,000 or 12,000 cesspools made in the porous earth, a hot-bed of subterranean decay must inevitably be formed, which cannot be easily removed. The immediate evils may, indeed, be masked by the pure and balmy breezes of the sea, and forgotten under the influence of a bright and cloudless sky; but the Augean stable is not the less real because it is out of sight, and the liquid filth cannot fail to contaminate the wells, saturate the foundations of the houses, and shed its baneful influence over the inhabitants at large. Natural advantages, however good, cannot be relied on as the sole and sufficient foundation for sanitary reputation; and it is certain that the visitation of cholera, the constant presence of fever, and a mortality higher than that of any other Sussex bathing place, conveyed an imputation of unwholesomeness which could not be despised. Prosperity and rapidity of growth, in great measure due to convenient proximity to London, and good railway organisation, may yet receive a check from the neglect of sanitary precautions which that very growth demands; and, in the balance of public estimation, a little shorter distance will weigh but lightly against a perfect system of drainage and a careful compliance with the rules of sanitary art. The recognition of the danger is, indeed, a most important step; and if in the following Report we should seem to be unduly urgent for the adoption of more energetic and expensive measures, we would beg of the authorities of Brighton to believe that, on public grounds, we are as sincerely anxious for the permanent welfare of the town as they are themselves.

We cannot but regard it as a great misfortune that the drainage of the Brighton coast should not have been exclusively confided to the municipal authorities. The Parliamentary borough now includes both Hove and Cliftonville, and nothing shows more completely the weakness of the central government than that two authorities should be permitted to exercise independent jurisdiction within so small a limit. The wealthy proprietors of the western suburb appear to have no objection to be joined to the borough in order to obtain a vote, or to make use of the labourers they do not choose to house within their aristocratic boundary. But with respect to poor-rates and drainage it is a different affair. The less they have to do with the town the less will be their burden; and so the two bodies treat each other with scant courtesy, and altogether fail to act in common for the public good. It is this want of a powerful and intelligent executive which has prevented the adoption of a comprehensive scheme for the drainage of the district, and the sewage, instead of being conveyed away and used upon the land, is turned by no less than six outlets into the frontage of the sea. The daily sullage of 80,000 people may be as a drop in the bucket compared with the water in the ocean; the most accurate observations may prove that the operation is innocuous; but the idea is of itself sufficient to destroy the "bathing" reputation of the town, as compared with Eastbourne and Hastings, where such an objectionable arrangement has been obviated at a vast expense.

Proceeding along the shore from west to east, we find, first, two iron pipes, from which is discharged the sewage of the western portion of Cliftonville and Hove. The quantity is not at present large, but as houses increase in number it will become so. The thin edge of a vicious principle is inserted, and the evil will only attain its full proportions when it can be no longer remedied. Opposite Waterloo-road are the outlets of Hove and Western Brighton. The former consists of a large iron pipe, projecting 447 feet into the sea, but visible throughout the greater portion of its length at low water. An immense volume of dark and stinking sewage is poured out with considerable force. A dark spot, some fifty yards in diameter, is plainly visible from the road, and an oily-looking streak passes along the current of the water. A few yards eastward is the Brighton outlet, which is shorter, and delivers its offensive material close upon the shore, within sixty yards of the bathing boxes near. During the late hot weather the combined stench from these outlets was considerable; and if the sewage is to be discharged seaward, these outlets ought to be immediately prolonged for half a mile at least. One single pipe would effect this object; but from want of cordiality between the authorities of Hove and Brighton, nothing in common, we believe, is likely to be done.

The main outlet for the great Brighton sewer is opposite the Old Steyne. It consists of two portions—namely, a large iron pipe which is prolonged to the extent of 1760 feet from the shore, and a shorter wooden tube which discharges the storm water. The extremity of the former is easily discovered by the disagreeable odour of the sea, and by the force with which the sewage rises to the surface, on account of its lighter specific gravity. At the time of our visit the sea was moderately calm, the wind easterly, and a gentle current was setting towards the west. For a space of many yards the water was discoloured, and the difference in tint could be seen for at least a quarter of a mile. As it is impossible to doubt that the contamination continues long after the visible effect is lost, it is perfectly certain that the sewage would reach the beach if the current set that way. At this part of the coast the tides are greatly influenced both by local causes and by the force and direction of the wind. The course of the current is liable to continual and seemingly capricious changes. Little if any dependence can be placed upon its carrying the sewage immediately out to sea. Under a gentle southerly wind, an inoffensive and much-diluted form of sewage is probably conveyed to the Kemp Town beach when the current is easterly, and to the neighbourhood of the Western Pier when it runs in the opposite direction. Rarely and more exceptionally it may be driven almost directly upon shore; and that it is so seems confirmed by the fact that the proprietors of Brill's Baths have in-

curred a very large expense, since the prolongation of the outfall sewer, in bringing salt water for bathing purposes from the extreme end of Hove. The ostensible object was the supply of the houses on the road with salt water; but this might have been accomplished better from their present central premises, where the supply would have been easily obtained at a much less cost. Indeed, we cannot believe that they would have expended £10,000 in erecting a pumping station at Hove to supply baths in King's-road, if they had not obtained more positive evidence of the impure state of the sea close by than it was thought fit to publish. In the absence of an intercepting scheme, which even now we would prefer to any other plan, we would recommend a further prolongation of the outfall pipe, and the erection of a cowl over the extremity, which would secure a more perfect diffusion of the sewage in the sea. The storm outfall is not in a satisfactory state. An offensive liquid percolates the beach and rises through the floor, creating, under certain states of atmosphere, considerable stench. It will be advisable to make it quite impervious by a floor and covering of concrete. Some precautions also require to be taken with respect to dead animals put into the sewers; they come out of the outfall during storms, and are most offensive objects on the beach. The eastern outfall is situate at Black Rock. At present it conveys only a small quantity of sewage, and, as the current of the sea is chiefly eastward, little harm is done. But all the evils of these outfalls are in their infancy. At present there are about 14,000 houses in Brighton, of which less than 4000 are drained into the present sewers. There are probably between forty and fifty miles of streets, and only twelve miles of sewers are yet in operation. A contract is now being carried out for thirteen miles of sewers, which will be capable of draining 6000 houses, should they all adopt it. It is evident, however, that the work actually done is comparatively small, and that the evils of the present outfalls will be greatly magnified when the system of sewers and house drainage is complete. But, unfortunately, there is still a lingering affection for the cesspool system, which prevents the complete development of the advantages which even the present main sewers are able to afford. The prejudices of generations are not easily overcome. There are many who believe in this filthy institution, and local boards, being the embodiment and exponent of the public will, cannot as yet act with the energy required for its abolition. We propose, therefore, to give a short exposition of the cesspools which are to be found in Brighton. And first, nearly every house has its own receptacle, and more houses have two than none at all. At a low estimate 10,000 cesspools are now in operation. Most of them hold from two to three waggon-loads of filth, and some of them are found to contain more than twice this amount. It usually takes two men two, and in some instances three, nights to empty them; and such is the stench that the health of the men employed suffers most severely. It may be estimated that eight or ten are opened every night, with obvious danger to persons who are sleeping in unconscious ignorance of what is going on. The frequency of this operation depends on the nature of the soil and the construction of the cesspool. There are four kinds: first, those made in what is called Coombe rock, which is a species of chalky marl interspersed with boulders, probably brought down upon the shore by glacial action. This substance is quite impervious to water. Cesspools made therein are speedily filled up with very liquid matter, and easily run over. They require to be often emptied, and the farmers grumble because the contents are scarcely worth the trouble of cartage. Beneath this most peculiar deposit, which reaches at some points to a depth of seventy feet, and extends for a considerable distance, both in the eastern and western portions of the town, there is a continuation of the shingle of the coast, composed of rough stones and fine sand, with the remains of bones and curiously burned bricks, which must have been made by man millions of years ago. Very many cesspools communicate with this, and as it is capable of receiving almost any amount of solid as well as liquid matter, these cesspools may go for fifty years without being opened. In the northern portions of the town the cesspools are made in chalk, and in many cases one above the other. When first made they absorb a considerable amount of solid as well as liquid matter, and they go for several years without being cleansed. But as the pores of the chalk become closed up, the interval between cleaning out becomes less and less, until at length they require to be opened almost every year. Lastly, very many wells have been closed for drinking purposes by order of the authorities, and have been converted into common cesspools. A most experienced person has never known one of them stopped up. The watercourses in the chalk are immense, and will carry off any amount of solid matter. But the so-called springs appear in wells and on the beach, and are in some instances the source from which drinking water is derived. The water level of nearly every well in Brighton is within the level of the tide, which in some cases affects the flow, and in one or two the taste.

Enough has now been said to show the extent and dangers of the cesspool system. It contaminates the soil, the water, and possibly the beach itself. Nor is it economical. Every time it costs from £2 to £3 to clean out a cesspool, and often more to deepen it. Every year they become more and more difficult to manage; and we believe that the time has arrived when the authorities should insist upon the discontinuance of an evil which is by no means confined to the premises on which it is placed, but absolutely deprives those who have drained into the public sewer of the full advantage of the expense they have incurred. We were assured that, in the cesspool districts, disease assumes a peculiarly asthenic form, and that nervous depression and neuralgic affections are very marked. These do not necessarily increase mortality, but they destroy the advantages which the invalid is entitled to expect at such an admirable spot.

In conclusion, we would seriously urge the Brighton authorities to quicken their movements in this important matter, or they will be outstripped by their more energetic neighbours. They have relied too much on their reputation; they have not grappled with the drainage question with the necessary energy; and, by permitting the division of authority, they have wasted their efforts in partial and imperfect schemes. We know that they have a costly sea wall; that they have liberally provided for the amusement of their visitors; that they have erected a magnificent workhouse for their poor—in fact, that they have given so many tokens of a liberal public spirit that we feel assured that it is the conviction of necessity which is alone wanting in the present case. There are a few enlightened persons who look forward with fear and trembling for the future prosperity of Brighton; and more than one expressed his fear that the danger lies in the very notion of putting sewage into the sea. Let the subject be fairly investigated, and the absolute purity of the sea water be placed beyond the shadow of a doubt. In this matter Brighton can afford to be extravagant, the mere loss of sewage being as nothing compared with an unsullied reputation for the sea in shore.

SANATORIUM AT WESTON-SUPER-MARE.—The establishment of a sanatorium at this western watering-place has been a moot point for some time, and this year a few gentlemen started a temporary home of four beds under an experienced matron, the system adopted being self-supporting to the extent that each patient pays for his own maintenance, the rent, fuel, and nursing expenses being borne by the contributors. A house has now been purchased, with an acre of pleasure ground sloping to the sea, and is being fitted up for thirty beds, including a children's ward of six beds. The new home will be called "The West of England Sanatorium," but patients will be received from all parts of the kingdom if there is room.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 19, 1868.

THE annual Report of the Poor-law Board presents some features of peculiar interest. In the first place it records a vast augmentation of pauperism throughout the country, and especially in the metropolis, where, although every union and parish exhibits some increase, the rate varies very materially, the largest, namely 76 per cent., being in the Poplar Union; in Kensington, Islington, Bethnal-green, the Strand, and other parishes, it varies from 27 to 35 per cent. This increase is attributed to the general depression consequent on the commercial crisis, to the cholera in 1866, to the severe winter following, and to the extent of charitable assistance. But it is to be remarked that the increase began some years before, when commercial prosperity was at its height, and we are inclined to think that one of the main causes is to be sought for in the physical degeneration of the London labourers, and the immigration of numerous poverty-stricken families. We cannot deny, however, that inadequate relief, and indiscriminate charity, have much to answer for, it being a lamentable fact that whilst there is a charitable institution for nearly every form of destitution, there is yet no place where a deserving person is certainly and efficiently relieved. Begging becomes for the destitute a necessary business, and the spirit of pauperism is encouraged by the very means which, if properly organised, would effectually prevent it.

Great improvements have been effected with respect to the medical treatment of the sick, and more are in contemplation. We notice that the expenditure under the head of Medical Relief, which includes the salaries and extras of medical officers, the cost of drugs where provided, subscriptions to public hospitals, and medical appliances, has nearly doubled since 1840, when these items were first included in a separate column. The advance is now proceeding with more rapid strides. In the metropolis the expenditure under this head in 1865 was £30,082, whereas in 1867 it reached to £35,834, being an increase of 17 per cent. Considering the vast sums spent by the public hospitals and dispensaries for the benefit of the sick poor, it might have been supposed that this large sum would adequately provide for the wants of the pauper class, and sufficiently remunerate their medical attendants. But we have abundant evidence that this is not the case. In the interests both of the public and the profession it is desirable that a better organisation be set on foot, so that this money may be expended with the best effect. This will doubtless be found in the formation of a special medical department at the Poor-law Board.

The Report affords a detailed account of the steps which have been taken to bring into operation the provisions of the Metropolitan Poor Act, 1867; and, on the whole, we are bound to say that the Board has acted with creditable energy. There is, however, one notable exception; for although the Board has not been unmindful of the out-door sick, it has contented itself with issuing a circular letter, and is only thinking of the orders necessary for the organisation of dispensaries. In one year the Irish Poor-law Board, with equal powers, divided the whole of Ireland into medical districts, and reported that the dispensary system was complete. We commend their zeal for imitation by their English compeers.

Allusion is made to the inquiries held at Cheltenham, Farnham, and Walsall; and with respect to the first, it is stated that the guardians are about to effect very important improvements, which will enable them to place the arrangements for the sick on an entirely satisfactory footing.

A regret is expressed "that, in some instances, defects and abuses of a serious kind are shown to have existed, owing to the inadequate size of workhouses, unusual pressure of manufacturing distress, and in some cases by a failure in the discharge of their duty of workhouse officers, and by neglect of the regulations laid down by the Board. There is reason, too, to fear that in certain cases there has been a want of proper supervision on the part of guardians and visiting committees." This, we think, is a very mild way of putting it, considering that these defects have been so long systematically overlooked by the majority of the inspectors, and have never before been noticed by the Board. The proposed remedy is, however, most absurd. There is to be no increase of inspectorial work, but the medical officers are to be called on to report upon themselves, without any provision whatever for extra pay. We most cordially endorse the hope that workhouses may not be entirely converted into State hospitals, and that the majority of sick, aged, and misfortune-stricken poor may continue to be relieved in their own homes, where a sense of independence may be permitted to survive their ruined fortunes. We fear the tendency in this direction needs rebuke. Foreign experience shows that State accommodation may be unduly large, and the French have been for some years extending the medical relief at home and curtailing admissions to the hospitals as much as possible. It is always much easier to admit than to discharge poor patients labouring under chronic disease; and a disposition to idleness is far more likely to be encouraged by the confinement of hospital than by that of home life. We therefore hope that the guardians will continue to avail themselves of the civil hospitals, instead of increasing their own to any great extent; indeed we should hail with satisfaction any approach to great cordiality between the parochial authorities and the administrators of public charities generally. There is no reason why, in this and other respects, the guardians should not be permitted to avail themselves of the many philanthropic energies which are engaged in the very same duty as they are themselves. In the metropolis, therefore, it is to be hoped the extension of pauper hospitals will be restrained by the Poor-law Board within moderate limits; and we are of opinion that three or four well-regulated establishments ought to be sufficient. Nevertheless we agree that workhouses should be supplied with all reasonable and proper appliances for the treatment of diseases of every kind, and that there is a necessity for cleanliness, sufficient space, good nursing, and everything which may tend to promote a cure and alleviate suffering.

There are other subjects of great medical and general interest, to which we may probably allude in a future article.

WE could hardly have anticipated, when we lately welcomed the appearance of the new Nomenclature of Disease pre-

pared by the College of Physicians, and urged its immediate and universal adoption, that circumstances would so soon arise as they have done to show the extreme importance of our recommendation.

This summer has been one of exceptional heat, combined with drought, and in July the great increase of diarrhœal disorders in London showed that the influence of the weather on the physical organisation was manifesting itself in such a manner as to make it a matter of very earnest hope that no chance seeds of epidemic cholera might find their way into a soil so favourable for their reception and development.

The deaths from "diarrhœa," according to the Registrar-General's Weekly Returns, averaged about 70 per week during the month of June; but in July the weekly average exceeded 350, and in August it was 240. During these three months the deaths specified in the Returns as having occurred from "cholera" were, week by week, as follows:—1, 3, 8, 18, 19, 19, 37, 58, 38, 29, 29, 15, and 10. Altogether the total deaths from these two diseases in the thirteen weeks, from the beginning of June to the end of August, amounted to 3018 from "diarrhœa," and 284 from "cholera."

Now, assuming that the term "cholera," as used by the Registrar-General, had really meant the true "malignant cholera," or *cholera pestifera* of the new nomenclature, these 284 deaths would have been regarded as a serious matter indeed, and long since we should have had a revival of those extraordinary (they ought rather to be ordinary) precautions with which we are familiar in epidemic seasons. But nothing of the sort has taken place; the "local authorities" of the metropolis have rested calmly free from the importunities of health officers, and the serenity of the parochial mind has needed no special ruffling by the press in its capacity of monitor of the public safety.

Unconscious, therefore, of any danger in our midst, it may be judged how great was our astonishment to learn recently that the Spanish Government had issued a decree declaring Great Britain and all our colonies infected, and imposing ten days' quarantine on all vessels from any port in our dominions. Soon afterwards it was announced from Lisbon that vessels coming from any port in Great Britain, London excepted, would be allowed free communication; London was still considered "suspected," and was to remain so until further health reports were received. To complete this remarkable chapter of sanitary history, we may add that a telegraphic despatch, received at the Foreign Office on the 12th inst., states that the Spanish authorities have now declared *all* English ports free from cholera, and that quarantine is no longer necessary.

On the annoyance, vexation, and cost, which this proceeding on the part of the Spanish Government has entailed on a great number of persons it is not our purpose to dilate, the most unsatisfactory part of the business being that, as *The Times* very rightly points out, something may be said in excuse of a foreign Power which has been no doubt misled by the loose nomenclature too frequently applied to diseases in this country. The Spaniards do not, in all probability, know that what is called "cholera" in our official statistics includes "choleraic diarrhœa," "English" or "summer cholera," "cholera infantum," &c.; they probably attach but one meaning to the term, that one having reference exclusively to the malignant disease which, in its epidemic form, they strive to avert from their shores by the aid of quarantine. It is more than likely that the Spanish authorities drew their information as to the existence of cholera in this country rather from some secondary source than from the official returns themselves, otherwise it is hard to conceive how they could have fallen into so grievous an error. For although, in the tabular statement of deaths published by the Registrar-General every week, the terms "diarrhœa" and "cholera" are used without any qualification whatever, yet in the introductory remarks attention is ordinarily directed to the *character* of the cholera cases. Thus in the return for the week ending July 25th:

"Fifty-eight deaths by *choleraic diarrhœa* or *summer cholera* were registered in the week: thirty-eight were children under one year of age, eight aged one year, one aged three years, and two aged five years."

And further, for the week ending Sept. 5th:

"The deaths of two adults and of two children by cholera were registered. *These are cases of the ordinary summer cholera. Asiatic cholera has not been epidemic during the summer in London, or in any of the ports of the United Kingdom.*"

If, as has been suggested, the Spanish authorities relied on the statements of "trustworthy English journals," wherein the chances are that the distinction sometimes drawn in the official returns may have been for the sake of brevity omitted, they may to some extent be excused, although in so important a matter as the imposition of quarantine nothing short of the most authentic information ought to be relied on.

We entirely agree with *The Times* that the nomenclature of disease should in future be placed on such a footing as to preclude a similar mistake. The Registrar-General's returns deserve all that is so frequently said and written in their praise, and a very little modification would make them perfect. In their present form they are too comprehensive, and therefore likely, in regard to many other diseases besides cholera, to mislead any but those particularly conversant with the principle involved in their arrangement. There can be no possible objection to Dr. FARR's adherence to his own plan of classifying diseases for statistical purposes, provided he at the same time publishes the details prescribed by the College of Physicians. In the case of such a malady as cholera, the form of the disease should be distinctly stated, both in the tables and in the letterpress, so as to show unmistakably whether it is mere simple cholera, or the malignant form, against which the protection of quarantine may be invoked. The true Asiatic or malignant cholera is an entirely distinct disease from the ordinary cholera of our summer and autumn seasons; and it is most important that this fact should be clearly set forth in the official returns of death. No doubt cases will arise in which, from inaccurate or careless diagnosis, no distinction as to the form of the disease may appear on the medical certificate of the cause of death; possibly, also, practitioners may think there is little use in making a distinction of which no record is preserved; but these cases would soon disappear if the Registrar-General were to appeal to the profession to aid him by adopting the new nomenclature, as he did in times past in regard to the one now in force. We need hardly remind him that so important an expression of professional opinion as the new nomenclature implies merits the most prompt and acquiescent attention on his part; and in the interests of his department, as well as of those public considerations to which every good citizen is bound to have respect, we trust that he will at once adopt a form of publication for

fatal diseases which will render such a misapprehension as that under which the Spanish Government has laboured impossible for the future.

THE Norwich discussion raises once again the question of the intimate physiological nature of that curious cerebral change which produces the disease known under the various names of aphasia, aphemia, alalia, and a dozen other designations. There has seldom been, in the history of medical polemics, a more singularly tangled controversy than this. Perhaps it was natural that a dispute on the nature of speech should involve more of those confusions which depend upon mere differences in words; at any rate, there has rarely been a controversy with so much of the merest *logomachy* in it as that on aphasia.

If we endeavour now, at the end of six weary years during which the battle has raged, to sweep aside the mere rubbish and débris, and to get at the solid facts and principles which still remain in a recognisable shape, it is not impossible to see how the idea of aphasia first fashioned itself, and the form which the doctrine is likely ultimately to assume. The discoveries of DAX and BROCA as to the concurrence of aphasia with left-sided brain disease seemed at first to strengthen the semi-phrenological view which was more hazily sketched in the papers of BOUILLAUD, which affirmed that disease of the anterior lobes was the *vera causa*. It seemed as if we were tending to a revival of that coarse and mechanical view of the function of speech which regarded it as a concrete and definite entity that could be located in a small and separate portion of the brain. It was no wonder, perhaps, that so strange a phenomenon as that of a man with a brain that could think, and a tongue that could wag quite well, but without any power to make the thinking and the tongue-wagging coincide, should provoke that kind of intense curiosity which is never satisfied till it invents a definite, perfect, and "simple" explanation of the whole affair. At any rate it is certain that there was at first a great disposition to settle this matter of aphasia by a rude application of a bastard phrenology. If there be one writer more than another to whom medicine is indebted for having first drawn attention to the insufficiency of this kind of view, it is Dr. J. HUGHLINGS JACKSON. He it was who, in various papers in this journal (THE LANCET, February, 1866, December, 1867, and July 20th, 1868) insisted, first, that language was a very much more complicated faculty than had been assumed; and, secondly, that if a very large number of fatal cases of aphasia showed lesions about the neighbourhood of the third frontal convolution, that was as much as to say that a large proportion of those cases had lesions in the immediate surroundings of the corpora striata,—i.e., in the most important centre and meeting-place of the various fibres of the brain. A similar view was argued in the late discussion at Norwich, by Dr. HUGHES BENNETT. Dr. JACKSON has added most important observations on the different degrees with which the intellectual and the emotional kinds of speech are affected. He has shown that the man who cannot by any possibility find the right phrase for a merely indifferent object, will *swear* with the utmost precision as well as vigour. He has shown, too, that aphasia is by no means so rigorously separated off from other varieties of cerebral disease, affecting the intellect on the one side, and muscular movements on the other, as had been carelessly supposed by some.

The course of speculation on this subject, then, has recently tended rather to an expansion of our views, and the rejection of anything like distinct localisation of speech, as a faculty, in a particular convolution of the brain. There remain, however, an interesting and curious series of facts to be explained—facts which are so peculiar that we may be almost certain that in them lies the future elucidation of the whole question, although that elucidation will probably be of a nature precisely opposite to that which at first sight they seem to indicate. First of all, there is no denying the general fact of the great preponderance of left-sided brain lesion in well-marked aphasia. Secondly, it must be admitted that the third frontal convolution is involved, if it be not the only part affected, in a great majority of cases. Now, in seeking for an explanation of these very curious facts, it is necessary to take notice of some special statements and theories that have been put forward. First, there is the statement of GRATIOLET, that the left frontal convolutions are always developed more quickly and completely than the right—a theory which would be exceedingly interesting if true, but which CARL VOGT, no mean authority in such matters, expressly contradicted and repudiated at Norwich. Then there is the fact—which CARL VOGT himself mentioned at Norwich, and which is, we presume, undisputed—that in *apes* the third left frontal convolution actually is *entirely absent*.

Of theories which go to explain the predominance of left-sided action in speech, there is none more remarkable than that which was independently arrived at by Prof. BROCA (1865) and by Dr. MOXON (1866). This theory ascribes the lead taken by the left cerebral hemisphere, and especially its frontal convolutions, in those mental acts which make appropriate speech and writing possible, to the constant *education* of the left side of the brain by the traditional habit which decides that we shall perform a variety of daily and common acts (implying, however, great skill and delicacy of movement) with our right limbs. If the theory of GRATIOLET were true—which, however, is disputed,—this centripetal influence would be reinforced by the natural disposition of the left convolutions to develop with more rapidity than the right. But, at any rate, we have now pretty well got rid of any such narrow notion as the actual and bodily localisation of a complex faculty like speech in any one convolution; and it is easy to see that the undoubted predominance of left-sided lesion proves, at the most, nothing more than a habit and a tendency.

WE published last week our Students' Number, containing full information on all the subjects connected with medical education in this country. If the wishes and efforts of a certain section of the community were carried into effect, the Students' Number of some future years would contain similar information as to the medical education and licensing of women desirous of practising medicine. There seems to be very little fear that their rights and interests will be neglected for want of discussion and representation at the present time. Quite recently the medical authorities at Paris have consented to bestow diplomas upon ladies who might devote themselves to the art and practice of medicine. With much that has been advanced, however, we cannot agree; and we venture to think that the influence which women now exercise would be vastly diminished if the differences between the male and

the female mind were disregarded in the way that some of our modern reformers seem to desire. But a thoughtful and well-written article on "Women Physicians" in the last number of *Macmillan* differs in character from most, and deserves fair and candid consideration. Almost for the first time has the attempt been made to place the subject in a sensible light, and to discuss it with a practical aim. We willingly concur in thinking that woman's nature eminently fits her for dealing with suffering in its various forms, and that her qualities are not less likely than those of man to represent the highest type of the merciful Healer on occasions where sympathy, tenderness, and gentle tact are the only resources left us—cases where human skill is vain. We are glad to recognise, moreover, that the author of the paper deals out honest credit to the members of our profession for the motives which have actuated them in the course they have taken in this matter. The writer desires to see women taking part in the study and practice of our profession, and indicates the method by which it is to be accomplished. The evils attending the system pursued in America, of each medical school giving its own diplomas, and the perilous haste with which several schools for the education and examination of women were instituted when Miss BLACKWELL and her immediate successors started the idea of women physicians, are pointed out. The existence of inferior and irresponsible colleges, having the power to grant diplomas, and the inclination to grant as many as possible, would, it is urged, be an effectual hindrance to the better class of women taking a good position as physicians. The writer touches on the course pursued by the licensing medical bodies, and that adopted by the Apothecaries' Society, in regard to Miss GARRETT; and then proceeds to discuss separately two propositions. The first of these is, that women could with advantage practise a special branch of the healing art, even if there were theoretical and practical objections to their receiving a complete medical education. There can of course be no objection to the education of women as midwives, for example; but it must still be allowed that it is only exceptionally that women possess the requisite degree of courage and nerve to plan and execute a difficult obstetric operation. The second proposition has reference to the necessity or otherwise of women—whether studying a specialty or attempting the general study of Medicine—sharing the examinations intended for men. The writer in *Macmillan* urges, in the interests of the public and of those who may prefer a physician of their own sex, that every woman should be compelled to conform to the same rules and pass the same examinations as men before being allowed to practise. Omitting all reference to the reflections on the moral, physical, and intellectual fitness of women to study and practise Medicine—about which a good deal might be said,—we come to the question of how it is to be done. Considering the age at which young men study for professions, and knowing what we do of human nature, it certainly appears to us essential for the preservation of decorum, modesty, and morality, that the two sexes should not be mixed, but that they should be taught at separate schools and hospitals,—in which, we think, the writer of "Women Physicians" concurs. If we must have female physicians, by all means let them be trained practically; and let a certain standard of professional knowledge be guaranteed by a good and compulsory examination, such as men would have to undergo. We do not deny that, under such circumstances, the professional skill of some women might be utilised in the treatment of many of the diseases of their own sex and those of children; but we cannot bring ourselves to believe that the number of such women can be great, that they can compete with men successfully, or that it is to their own advantage or that of the public that we should have feminine dissectors and professors of anatomy, physiology, and chemistry, or lady debaters at our medical societies. If female doctors are to be drawn from the same rank in life as physicians and surgeons, it appears to us simply impossible to conceive that the refinement, sensibility, and delicacy which form the attributes of an educated lady, can be made to harmonise with the necessary scientific studies of a professional life. It is absurd to suppose that because we are medical journalists, and represent the views of men-physicians, we desire on that account to close the door against women-physicians; but the more we think of the subject the more the difficulties in the way crowd upon us.

Medical Annotations.

"Ne quid nimis."

ST. GEORGE'S HOSPITAL.

IN 1768 John Hunter was appointed one of the surgeons to St. George's Hospital, and dating from that time, which marks the first commencement of that teaching so ably followed up by Home, Baillie, Brodie, and Hawkins, it has taken exactly one century to complete and bring to maturity the school of St. George's Hospital. We do not propose to reopen the question of the merits of the rival schools in Grosvenor-place and Kinnerton-street; it will be sufficient to remind our readers that Mr. Lane transferred his interests to St. Mary's Hospital some fifteen years back, and that the site on which his school stood has been cleared for the improvements in Grosvenor-place. Kinnerton-street, on the other hand, has stood its ground, and has been the school of St. George's Hospital, until at last, thanks principally to the energy of the treasurer of the hospital, Mr. Charles Hawkins, it has been found possible to erect school-buildings in connexion with the hospital in every way worthy of the purpose to which they are to be devoted.

By the liberality of the Marquis of Westminster the hospital authorities have been able to erect a new wing to the south of the old hospital, and on the north side have arranged a new out-patient department infinitely more commodious than that hitherto occupied, and with the great advantages of an entrance and exit distinct from the general entrance to the hospital. The irregular piece of ground thus enclosed has been devoted to the buildings of the school of medicine, and has been most judiciously laid out so as to afford a very excellent amount of accommodation in every department. Entering from the basement of the hospital proper the visitor passes through a handsome passage, adorned with busts of Hunter, Baillie, Brodie, and Cæsar Hawkins, to the lecture-theatre, a capacious amphitheatre, fitted with stained wood-work, and adorned with a medallion of John Hunter. This is calculated to hold two hundred visitors at a pinch, and there being no gallery, and the entrance for students being immediately in front of the lecturer's seat, there should be no difficulty in controlling a class here. A smaller theatre, with a laboratory, is devoted to the chemical lecturer, and the offensive gases are carried off by a shaft, so as not to offend the nostrils of either the patients or the governors of the hospital. The same may be said of all the flues of the lecture-rooms and dissecting-room. This last is a handsome room, lighted by a sky-light, and with walls tinted and adorned with anatomical plates. Here are

to be found the two plaster models of the undissected and dissected subject extended upon a cross, originally made for Baily, the sculptor. At the end of the room is the private room of the demonstrator, with a little balcony from which he can survey his class, after the model of the old St. Thomas's dissecting-room. Those who knew the old kitchen which hitherto served as a museum at St. George's will find an agreeable contrast in the handsome miniature of the College of Surgeons' Museum now fitted up for the reception of the preparations. The walls here again are tinted blue, which throws up the preparations excellently; the pathological collection is placed below, whilst the anatomical preparations, which struck us as being below par, occupy the gallery. A terra-cotta medallion of Brodie adorns this room. Attached to the museum are the necessary rooms for the curator and for preparing specimens, and fitted in between them and the lecture-theatre is a snug little octagonal reading-room for the use of students. Altogether the school is one of the most complete and compact we know of, and reflects great credit upon its contriver.

The new wards of the hospital are built to contain twelve patients each, and are fitted with all modern appliances in the way of ventilation, waterclosets, &c. Each floor of the new wing communicates, though not directly, with the old building, and the number of beds will, when the new wing is occupied, be raised to 380. The attic floor is devoted to dormitories for the nurses, who enjoy a most extensive view over St. James's-park.

The new buildings, though partly used last summer, will be formally opened by the introductory address to be delivered by Dr. Acland, of Oxford, on the 1st of October—an event which will be celebrated by a dinner of old St. George's men, under the presidency of Mr. Charles Hawkins.

STRYCHNINE IN BITTER BEERS.

THE startling announcement has recently been made that several of the large brewers are experimenting on the properties of strychnine with a view of testing how far it is safe to use it in bitter ales as a substitute for hops. We earnestly hope that nothing so dangerous and scandalous is contemplated as the introduction into so valuable and wholesome a beverage as ale of such a deadly poison as strychnine. This is not the first time that the report has been circulated that strychnine is employed to impart the quality of bitterness to pale ale. Some six or seven years since a similar report was promulgated and spread far and wide through the columns of the press. At that time the subject was deemed of sufficient importance to demand a searching inquiry on our part, the result of the special inquiries and investigations then made being to demonstrate that there was not at that time the slightest foundation for the report in question. Now that the statement that strychnine is about to be employed in the manufacture of bitter beer has again obtained currency, it is once more imperative that steps should be taken with a view to ascertain whether the announcement rests on any sufficient foundation.

Hitherto it has been constantly alleged that our pale and bitter ales are the purest products which it is possible to obtain from malt and hops, and that these, of the finest quality obtainable, together with pure spring water, constitute their only ingredients. It is to a firm belief in the truth of this statement, on the part in the first instance of the medical profession, and subsequently of the public, that the extraordinary popularity of pale ale is to be attributed. So great has been that popularity that pale ale may be said to have become the national beverage. Now only let this faith on the part of the profession and the public be broken, and there will speedily be an end to the present enormous consumption of that description of malt beverage.

Strychnine is not only one of the most deadly and subtle of poisons, but it also possesses the property of becoming, even when administered in minute doses, stored up in the system—in a word, it is "cumulative," so that after a time, however small the doses originally given, the effects, sometimes poisonous, of large doses may be produced. The brewers, we trust, are but libeled in this case; but if it be not so, let them beware how they tamper with a deadly substance like strychnine, and at the same time with the health of the public. Fortunately the tests for strychnine, even in the minutest quantities, are perfect and conclusive, so that the practice of adding this singular poison to beer, if really adopted, will not be permitted to continue without exposure and punishment. We may mention, in conclusion, that the addition of strychnine to ale would be an infringement of the Act to prevent Adulteration, and would therefore come under the operation of that Act.

THE SCOTCH GRADUATES AND THE COMING ELECTIONS.

THOSE who mean to take a part in the important elections pending in the Scotch Universities must register soon. The 30th instant is the last day on which registration will be practicable. We have been informed that there is some apathy among medical men in regard to registration. Graduates have had a great power put into their hands, and they should use it cordially and conscientiously. Besides, the questions to be decided are very important. They are no less than these: whether Edinburgh University is to have for its Chancellor, and as Lord Brougham's successor, Mr. Gladstone, a foremost scholar and the foremost statesman of the time, of whom Bunsen said thirty years ago, "Gladstone is the first man in England as to intellectual powers, and he has heard higher tones than anyone else in this island;" or the Lord Justice-General Inglis, whose reputation is almost entirely local; whether the same University, in conjunction with that of St. Andrews, is to send a man of science to Parliament like Professor Playfair, or another lawyer. An important letter, signed by leading medical graduates of both Universities, will be found in another part of our present number, expressing their view of the claims of Professor Playfair. Our readers know that we see no chance of Dr. Richardson's candidature having any other effect than that of helping the legal candidate. Lastly, there is an important choice to be made in the Universities of Glasgow and Aberdeen between Mr. Moncreiff and Mr. Gordon. We have already expressed our reasons for thinking Mr. Moncreiff the eligible candidate. But whatever the opinions of graduates, they should register, and not allow it to be said that they are indifferent to a special franchise that has been given to them.

MEDICAL CORONERS.

NOTWITHSTANDING all that we have urged to the contrary, the *Solicitors' Journal* still remains convinced "that, *cæteris paribus*, the legal mind affords the making of a better coroner than the medical." Without undervaluing the "indirect benefits" resulting from coroners' inquiries, our contemporary holds that "the *primary* direct object of the inquiry is the first consideration, and *à priori* the man whose education and avocation have familiarised him with the rules of evidence and with judicial inquiries conducted by the best judges whom the nation has at its disposal, is more likely than anyone else to conduct a judicial inquiry himself so as to secure the attainment of the direct object, and the indirect benefit to boot. We believe that in a trial at *Nisi Prius*, involving questions upon which the opinions of medical experts have to be taken, the truth is far more likely to reach the ears of the jury, acting under the presidency of one of our common-law judges, than if the bench were occupied by the most profoundly learned member of the medical profession." Although we may be unable to convince the legal interest against its will that medical coroners are indispensable if the full protection of the office is

to be assured to the public, we still confidently trust to the good sense of the community at large for the adoption of our views whenever a decision of the kind has to be made. The *primary* object of the coroner's inquiry is to determine the exact cause of death and how it was brought about; the apportionment of blame, where such arises, is always the subject of a distinct subsequent legal investigation. That the first should be determined under the direction of a medical judge, as the second is invariably determined by a legal judge, appears to us to ensure the ends of justice far more satisfactorily than if both courts were under the direction of lawyers alone.

ANTISCORBUTICS.

THE operation of the Merchant Shipping Act, 1867, has given an impetus to the manufacture of various kinds of antiscorbutics for use at sea. We took occasion at the beginning of the current year to make mention of a preparation introduced by Messrs. Rose and Co., of Leith, which consists of lime- and lemon-juice treated with a small percentage of sulphurous acid. It is asserted by the members of the above firm that juice prepared in this way will keep for any length of time with all its antiscorbutic properties unimpaired, and that those properties are in no wise diminished by the addition of sulphurous acid. Messrs. Rose have submitted this mixture to the Board of Trade, and samples have been examined and reported upon by the medical officers of that department. As, however, no practical experiences of this preparation as a preventive of scurvy can at present be recorded, the Government officials were not justified in recommending its use in the mercantile marine. We are informed that the authorities at the Admiralty have consented to receive samples of the mixture, which will be placed on board some of her Majesty's ships on foreign stations, so that its prophylactic and conservative properties may be fairly tried. There is no doubt whatever that the present system of fortifying lime- and lemon-juice adopted by the Board of Trade under the last Merchant Shipping Act is, if properly carried out, all-sufficient to ensure the preservation of those articles. There is good reason to believe that the alcohol used is in itself an antiscorbutic, and it is certain that its flavour and aroma are grateful to the men. But this system, as legalised in the Act above quoted, is still on its trial; and, until very precise data as to its usefulness have been gleaned, the authorities at the Board of Trade would act unwisely in countenancing the use of any antiscorbutic about which no positive information has been obtained.

PATHOLOGICAL FUNGOLOGY.

IN THE LANCET of Sept. 5th a brief summary was given of Professor Hallier's researches concerning the development of parasites in certain zymotic diseases. At the recent meeting of the British Association, the president of the Biological Section (Rev. M. J. Berkeley) made some observations on Hallier's investigations; and it will be useful to reproduce the opinions of the most learned and distinguished of British fungologists. Mr. Berkeley believes that Hallier's mode of investigation is unsatisfactory, and that he jumps far too rapidly to his conclusions. Mr. Berkeley states—

"It is quite possible that certain fungi may occur constantly in substances of a certain chemical or molecular constitution, but this may be merely a case of effect instead of cause. Besides, as I conceive, the only safe way of ascertaining what really originates from such bodies as those which Hallier terms micrococci, or the larger ones commonly called yeast globules, is to isolate one or two in a closed cell so constructed that a pellicle of air, if I may so term it, surrounds the globule of fluid containing the bodies in question, into which they may send out their proper fruit—a method which was successful in the case of yeast, which consists of more than one fungus, and of the little Sclerotium, like grains of gunpowder, which is so common on onions. Anyone who follows the growth of moulds on moist substances, and at different depths, as paste of wheat or rice flour, will see that numberless different modifications are assumed in different parts of the matrix, without, however, a perfect identification with fungi of other genera. Some of these will be seen in the figures I have given in the *Intellectual Observer* of different forms assumed by the moulds to which that formidable disease, the fungus foot of India, owes its origin. This is quite a different order of facts, from the several conditions assumed by the conidiiferous state of some of the vesiculiferous moulds. As for example, Botrytis Jonesii, which has been ascertained to be a conidiiferous state of Mucor mucedo, while two forms of fruit occur of the same mould in what is called Ascophora elegans; or the still more marvellous modification which some of the Mucors undergo when grown in water, as evinced by some of the Saprolegniæ, the connexion of which was indicated by Carus some fifty years ago, but which has never been fully investigated."

In respect of Hallier's researches on the fungoid organisations found in cholera evacuations, Mr. Berkeley further observes:—

"When Hallier intimates that he has raised from cholera evacuations such a parasite as Urocystis occulta, he should have been content with stating that a form of fructification occurred resembling, but not identical with, that fungus. Indeed, a comparison with authentic specimens of that species, published by Rabenhorst, under the generic name of Ustilago, shows that it is something very different, and yet the notion of cholera being derived from some parasite on the rice plant rests very much on the occurrence of this form. But even supposing that some Urocystis (or Polycystis, as the genus is more commonly named) was produced from cholera evacuations, there is not a particle of evidence to connect this with the rice plant. In the enormous collections transmitted by Dr. Curtis from the Southern United States, amounting to 7000 specimens, there is not a single specimen of rice with any endophytic fungus, and it is the same with collections from the East. Mr. Thwaites has made very diligent search, and employed others in collecting any fungi which may occur on rice, and has found nothing more than a small superficial fungus nearly allied to Cladosporium herbarum, sullying the glumes exactly as that cosmopolitan mould stains our cereals in damp weather. Rice is occasionally ergoted, but I can find no other trace of fungi on the grains. Again, when he talks of Tilletia, or the wheat bunt, being derived from the East—supposing wheat to be a plant of eastern origin,—there is no evidence to bear out the assertion, as it occurs on various European grasses; and there is a distinct species which preys on wheat in North Carolina, which is totally unknown in the Old World."

Mr. Berkeley's remarks will no doubt induce caution in the acceptance of Hallier's results and conclusions. The former, he holds, require to be confirmed by other and independent observers; the latter are illogical until that confirmation has been received.

CONSTANT WATER-SUPPLY.

THE Association which has been formed to promote the constant system of water-supply deserves all possible support. The present enforced practice of storing water in receptacles more or less open to pollution is most objectionable in a sanitary point of view, as in a large proportion of cases the trouble and expense incurred by the companies to supply a good quality of water are thereby entirely neutralised. It is true that under the old law as it at present stands, the companies are required to give a constant supply upon the demand of two-thirds of their ratepayers; but, from the difficulty of securing the united action of a large body of persons, this provision is to a great extent inoperative. The experience of Manchester, Glasgow, Edinburgh, Birmingham, and many other communities, sufficiently attests that the objection entertained by the London companies to the constant system on the score of waste is untenable; the waste from imperfect fittings on the intermittent system is well known to be enormous. Both on the score of health and economy, it is to be desired that the efforts which are being made to supersede the intermittent by the constant system may be successful, and we therefore give them our most cordial approval.

THE MEDICAL CLUB.

JUDGING from the letters which have reached us, we imagine the general meeting of the members of this Club on the 14th of October next will prove an eventful one. Our correspondents' notes are pitched in different keys; but they agree in running up and down the gamut of discontent. Our readers are doubtless aware that the Club was constituted with the express understanding that individual members should not be responsible for any liabilities beyond their entrance fee and subscription. It was, moreover, agreed that original members of the Club should pay a lower rate of entrance and subscription than those joining subsequently. In the case of town members the subscription was fixed at three guineas, and in that of country members at one guinea annually. It is now proposed to raise the subscriptions—in the proportions of from one to three guineas and from three to five guineas—for the original country and town members respectively. The country members, who manifestly enjoy relatively small advantage from the Club, protest against any such change, representing it as a breach of faith and contract. The Honorary Secretary has, no doubt, a good deal to say about the difficulties of administering the Club successfully, from various unforeseen circumstances—the expense of the recent removal, and so on; and he reminds the members that they are protected against individual pecuniary liability at the expense of limited operations on the part of the Committee. Perhaps Dr. Lory Marsh, who has laboured very hard, and so far successfully, in bringing up his bantling, may be able to propound a plan for raising the extra capital required in accordance with the suggestion he has thrown out—viz., by raising it in the form of shares under the provisions of the Limited Liability Act, or in the form of debentures. If this plan were carried out, we understand an increase of the subscription of country members from one to two guineas, and of London members from three to four guineas, would be found sufficient.

As we have more than once said, we regard a Medical Club as calculated to do the profession great good in many ways, and we hope that it may weather the storm which is "brewing" in the country. We regret that the members of our profession in the metropolis have not lent it that amount of support which might fairly have been expected for an institution of the kind, and we hope that a much larger number of our leading surgeons and physicians may be yet induced to join it.

THE ABERGELE CATASTROPHE.

Now that the proceedings connected with the inquest have passed away, and we have had an opportunity of considering the course pursued by Lord Farnham, we must say that it was most unusual, as well as unjust and disrespectful to the Coroner, who deserves a good deal of credit for the calmness and forbearance he showed both in the inquiry and in the correspondence which has ensued since. The Coroner had a peculiarly difficult and responsible task. He had to prosecute an inquiry in which some half-dozen lawyers were engaged, and he adopted the best course, under the circumstances, in securing the assistance of an Assessor; but the inquest was most satisfactorily conducted, as the jury and every reasonable person must allow now that it is over.

COMMON LODGING-HOUSES.

THE *Daily News* lately called attention to the contrast between the condition of the numerous lodging-houses of the metropolis and provinces twenty years ago and those of the present time. Of course they are not now by any means all that could be wished, still the improvement has been very remarkable. Those lodging-houses where "good accommodation for travellers" (*alias* tramps) was offered were of the most revolting description—hotbeds of filth, disease, and obscenity. The Public Health Act of 1848 was followed by another in 1851, granting to the metropolitan police and others the right of supervising these lodging-houses, and giving them a power of compulsory administration where needed. The result of this legislative interference with the liberty of the subject to take advantage of the necessities of the poorest classes has been a great success. Our contemporary pays a just tribute of praise to the metropolitan officers of health for the way in which they have discharged and are still discharging their very arduous duties. We agree in thinking that the only way in which we are likely to civilise our nomade population is by efforts of this kind. Where dirt, overcrowding, abominable ventilation, and the admixture of the sexes without the least regard to decency, exist, we may be quite sure that there are factors at work in the production of physical and moral degeneration, against which a religious crusade, however well intentioned, must of necessity fail. We want, however, a far larger number of model lodging-houses and dwellings for the poorer classes in London and other large cities.

THE SMALL-POX HOSPITAL AT SAN FRANCISCO.

WE have received very unsatisfactory newspaper accounts of the management, or rather mismanagement, of this hospital. According to these accounts, the hospital is very much overcrowded; the nurses are inadequate in numbers, intemperate, and leave the patients over night to themselves. Two or three patients have been found dead on the floor in the morning; others have escaped in their delirium from the house. There is an almost daily use of the strait waistcoat; very few of the beds have sheets, patients lying on blankets and mattresses upon which other patients have died. A young Frenchman, in Ward No. 1, lay there with six other patients, of whom five died one after another. There is no resident medical attendant. A man was admitted on an error of diagnosis; he was retained fourteen days, and then allowed to go, leaving the clothes which he had brought with him; in seven days he returned, having the small-pox; a strait jacket was applied, and he died. It may be that there is another side to these facts, and we must admit that in the accounts from which we quote the facts are arranged and stated somewhat rhetorically, not to say sensationally. But if the statements be true, and they have not been denied, they are very shocking, and discreditable to a community of 150,000 people. The hospital is six miles distant from the town.

THE DISTRICT MEDICAL OFFICERS OF CLERKENWELL.

THE Clerkenwell Board of Guardians have been recently engaged in redistributing the parish among their three medical officers, with a view to making the work more equal. This they have succeeded in doing with the concurrence and to the satisfaction of the medical officers. The subject of their pay likewise came under consideration; and having compared their own with other metropolitan parishes, they came to the conclusion that they were underpaying their officers. By a resolution of the Board at their last meeting, the salaries of the medical officers were raised from £75 to £100. They have £5 each extra fees, and two receive vaccination fees of £18 and £20 respectively; but out of this even now not too liberal salary the medical officers have to supply the drugs in part, the guardians supplying cod-liver oil and the more expensive medicines.

THE MEDICAL ASPECTS OF A FAST LIFE.

WE do not mean a life of excitement and dissipation or a disregard of moral considerations, but that species of go-aheadism which we see in its freest development, perhaps, among the Americans. In no country in the world is the struggle for gain more actively carried on than in the United States, and those

who have watched the habits of the commercial classes in London and New York declare that the industry of the former is as child's play compared with the unremitting energy of the latter. The number of New York lawyers and merchants who take what Englishmen would call a vacation is said to be exceedingly small; and, according to the correspondent of the *Daily News*, they send their wives and families to the seaside or the mountains, where they join them at night, or run down by rail from Saturday to Monday. The consequence of all this high-pressure business energy, combined, as it frequently is, with a considerable amount of excitement and anxiety, and a devotion to iced drinks and whisky, is an increased occurrence of cases of nervous exhaustion, often ending in paralysis or lunacy. It will be remembered that during the period of extreme heat at New York there was a very unusual prevalence of heat-apoplexy, and if, as we are informed, ardent spirits are consumed there very much as beer is in this country, we need not be surprised at it. As the late Sir Charles Napier remarked, in reference to the maintenance of his own health, the heat of India found no ally in the alcohol in *his* brain. The moderate consumption of bitter beer and the enjoyment of a thorough holiday in the country or at the seaside for some weeks by our city merchants are undoubtedly much more favourable to the maintenance of health and life than the habits of their hardworking, energetic cousins of New York.

THE HEALTH OF THE QUEEN.

WE are in a position to state that since her sojourn in Switzerland the Queen has greatly improved in health. The untoward symptoms which cost her Majesty and her subjects so much uneasiness have yielded to the fresh mountain air and the change of scene in the most romantic of European countries. The benefit, indeed, has been so marked that the nation may look forward hopefully to her Majesty's resuming (at least partially) those public duties from which she has been so long and so unhappily estranged.

PRISON DIETARIES AT THE ANTIPODES.

THE articles on prison dietaries which appeared in THE LANCET in the early part of the present year having attracted the attention of Dr. Pringle, visiting surgeon of the gaol at Parramatta, New South Wales, that gentleman has obligingly forwarded to us the scale of dietary in use in the prisons of that colony, under the direction of the Honourable Henry Parkes, Colonial Secretary, and Mr. Sheriff Maclean, Inspector of Prisons. It appears to us that, whilst on the one hand the scale is amply sufficient to sustain health and vigour, and excellently graduated for the requirements of prolonged residence in prison, it cannot on the other be condemned as a luxurious diet, or one likely to tempt men to crime to secure the benefits of a gaol life. The best evidence of the sufficiency of the diet is the efficient condition of the prisoners, and the small rate of mortality, only 11 deaths having occurred in Parramatta Gaol, the average number of inmates of which is 240, in the space of six years, one of these being a case of suicide, and two others instances of prisoners brought in moribund.

THEATRICAL SURGERY.

THE contrivances of the stage are certainly ingenious, but we doubt if they have yet reached the point of ingenuity lately witnessed on the boards at Preston. A performer on the high trapèze made an unlucky spring and fell from a height of thirty feet to the stage. By the fall he "put his neck out of joint." Odd as the injury was, the treatment bestowed on it was odder still. A gentleman amongst the audience (we are not informed at what school he had qualified) volunteered his assistance, and was, it seems, "successful in putting the neck right again." The patient now lies in a precarious state, but whether from the effects of the injury or of its treatment does not appear. The affair is a serious one—the reduction of such a dislocation being something more than a *reductio ad absurdum*.

DEPUTY INSPECTOR-GENERAL LONGMORE.

IT will be satisfactory to the medical staff of the Army, no less than to the profession at large, that Deputy Inspector-General of Hospitals Thomas Longmore, C.B., has been gazetted to be Honorary Surgeon to her Majesty, *vice* Inspector-General of Hospitals Alexander Melvin, deceased. Mr. Longmore's scientific reputation, as well as the able manner in which he discharges the important duties of Professor of Military Surgery in the Army Medical School at Netley, fully entitle him to the distinction he has received, upon which, and the improved state of his health, we venture to offer him our congratulations.

INDIAN MEDICAL SERVICE.

SOME of our correspondents have pointed out that probably no promotions were made in the medical department of the Indian army, on account of the successful campaign in Abyssinia, because, being a seniority service, any deviation from the rule would have caused great discontent and involved a considerable measure of injustice. In our remarks on this subject we did not say what should be the exact nature of the rewards. We confined ourselves to expressing the opinion that the services of the medical officers of the Indian army had not been sufficiently recognised by the Government, and that these officers had not received a fair proportion of the rewards; and to this opinion we adhere. There are ways in which officers may be rewarded besides promotion.

THE CÆSAREAN SECTION BY A CURATE.

A CURATE in a country town of Belgium, Boom, has performed the Cæsarean section upon one of his parishioners, in order to baptise her unborn child. The curate knows that he has transgressed the laws of the land, but he avers that he has the authority of his ecclesiastical superiors, and he relies confidently upon the women of his parish to pay the fine to which he has become liable. It is, we fear, useless to argue against priestliness and sacramental theology, especially if backed by "the women of the parish;" but we should be glad to hear that the priest had been cured of his excessive faith in himself and his *opus operatum*, by being left by "the women of the parish" to pay the fine himself. It would not appear to be the first time that he has assumed surgical functions. The case discloses serious medical tendencies of the sacramental theology, against which we must enter our early and emphatic protest.

COUNT BISMARK'S VISIT TO ENGLAND.

THE founder of German Unity is, it is stated, about to visit our shores for the renovation of another constitution,—which is, this time, his own. The public are already aware that the events which preceded and culminated at Sadowa cost Count Bismark the intensest anxiety, with the usual result of an impaired nervous system and sleepless nights. A fall from his horse quite recently added a fresh source of ailment to the already shattered health of the Prussian Premier. By the advice of his medical attendants, he will spend a few weeks of the autumn at one of our watering-places,—we believe on the west coast. It is to be hoped that the Count's visit to our shores will be followed by the desired result, not only for the sake of a life so invaluable to the central nation of Europe, but also as a suggestion to those of our countrymen who annually take flight to the Riviera as a health-resort, that there are spots much nearer home which are still better fitted to recruit their

exhausted energies, and, even from their natural beauty and attractiveness, to "minister to a mind diseased."

SOCIAL SCIENCE ASSOCIATION.

THE National Association for the Promotion of Social Science will hold its Twelfth Annual Congress in Birmingham during the week beginning September 30th, under the presidency of the Earl of Carnarvon. In the section on Health, the president will be H. W. Rumsey, M.D., and the vice-presidents John Birt Davies, M.D., Wm. Farr, M.D., F.R.S., Chas. Hawkins, Esq., George Lloyd, M.D., and A. P. Stewart, M.D. The secretaries of the Section are William Clode, Esq., and William Hardwicke, M.D.; and the local secretaries, T. H. Bartleet, M.B., and Balthazar W. Foster, M.D.

The following will be the special questions for discussion in this department:—

1. Can the public hospitals and dispensaries of this country be so administered as to conduce more to the welfare of the community?

2. What ought to be the functions and authority of medical officers of health?

3. What is the relation of the water-supply in large towns to the health of the inhabitants?

EATING HUMBLE PIE.

THE very reasonable increase of salary proposed to be given to the medical officers of Mile-end, after having been refused by the Poor-law Board, has at length been sanctioned. "The Board have carefully considered the application made to them, and the grounds on which it is based; and on the whole, if the guardians think it expedient to maintain the restriction against private practice, the Board will be prepared to assent to the proposed increase. The Board, however, before giving their formal sanction, request the guardians to consider whether the restrictions against private practice should be considered, and also whether such restriction is or can be ensured. If that restriction be removed, then the present salaries appear to the Board sufficient."

HYDROPHOBIA.

MR. HOLMES COOTE writes to *The Times* in confirmation of what is already known to the profession, though still, it seems, unknown to Sir Richard Mayne, on the subject of canine madness. The disease called hydrophobia is but little understood, and is a far rarer occurrence than is popularly believed. In the course of thirty-five years' observation at St. Bartholomew's, Mr. Holmes Coote saw only two cases of it; and one of these so far belied the vulgar pathology as to the patient's repugnance to water, that the sucking of ice gave him the greatest relief. The cruel and utterly irrational practice of muzzling dogs in hot weather is scouted by every scientific man; and if it is resorted to again, we should recommend its being taken up by the Humane Society. Tetanus, under which the phenomena of hydrophobia must be classified, is a sad affliction, but we question if that form of it popularly known as lock-jaw would not be salutary in the case of those persons who are continually calling out "Mad dog!" and urging the executive to its present needless and cruel precautions.

SHEFFIELD PUBLIC HOSPITAL.

WE are glad to find that the Weekly Board of this hospital have received sufficient promise of support to enable them to proceed with the projected enlargement of the building at once. It is gratifying to know that so cordial a feeling is entertained towards the medical staff that the first act of the Weekly Board, after the governors had decided to enlarge the hospital, was to appoint a Building Committee on which the whole of the physicians and surgeons were placed. The staff will thus be enabled to see that the new wards possess every requisite for the treatment of patients. We learn, further, that Dr. Frank-Smith, having returned to Sheffield, has been reappointed one of the physicians to the hospital.

THE Professors of Medicine and Natural Science at Cambridge, having found the time which has usually been allotted to their lectures in each term insufficient, intend to begin their courses in the ensuing terms earlier than has hitherto been the custom. The courses in anatomy and chemistry will, accordingly, begin on the 12th of October and on the 18th of January. It is expected that examinations in Natural Science for scholarships will be held in the several colleges as follows: Sidney, October 7th; St. John's in April or May; Downing in May; St. Peter's in May; Trinity on Easter Monday. That in Trinity is open to all undergraduates of Oxford or Cambridge. The others are open to all students (whether they are members of the Church of England or not) who will not have commenced residence in the University at the times of the respective examinations. Information may be obtained from the tutors of the several colleges, and notice is given beforehand in *The Times* and other newspapers, under the head of University Intelligence.

IN consequence of there having been for some time a prevalence of scarlet and other fevers in Thetford, the Privy Council have directed one of their medical inspectors to visit the place, the authorities of which are reported not to be very active in taking measures for the prevention of epidemic disease. The *Norfolk News* says that there have been no less than forty deaths from fever in that town during the present summer. Thetford has a small population, stands on a chalky soil, and is in a good open situation; yet we are told that infectious diseases usually appear every summer.

WE are glad to perceive that the foundation stone of a Cottage Hospital has been recently laid at Ilfracombe, where for the last four or five years a cottage has been used for the purpose of affording medical relief. The new building, in addition to containing all the modern improvements, is to be furnished with a special ward for convalescents—a most desirable addition to an hospital at a place like Ilfracombe.

IF the information of a special correspondent of *The Times* prove to be correct, our invalid Indian officers may be enabled to obtain every variety of climate and scene within a comparatively short space of time. In alluding to the *fêtes* given to celebrate the opening of ten miles of a railway in the canton of Vallais, he says this is a portion of a line which is to give a direct railway communication between Paris and Milan *viâ* the Simplon Railway, and which, according to its projectors, will form part of the highway between England and our Indian empire. The scheme has the approval of M. Lesseps, the projector of the Suez Canal, who regards it as a supplement of his own plan for shortening the overland route to India. It will certainly be a marvellous proceeding if our Indian physicians should recommend their patients the alternative of a residence in the Himalayas, or one on the Swiss Alps.

A PLEASING tribute to the professional merit and social qualities of an army medical officer was paid on the 2nd inst. by Colonel Gordon and the officers of the 75th Stirlingshire Regiment, on the occasion of the departure from Gibraltar of Dr. Carter Murphy, the assistant-surgeon of the corps, on his transfer to the staff, at a farewell dinner which was given to him. Colonel Gordon, in proposing Dr. Murphy's health, expressed on behalf of himself and the officers of the regiment generally, the high respect in which Dr. Murphy had been held during the six years he had served with the regiment.

His attention to his duties had at all times been most praiseworthy, and they had been performed in such a manner as to reflect credit on his professional skill, and the kindliness of his disposition. The gallant colonel said that Dr. Murphy's leaving the regiment would be felt as a general loss, and concluded a warm eulogium by wishing him and his wife long life and happiness, a toast which was cordially responded to by all present.

AT the September Examination of candidates for the medical service of the Royal Navy, six candidates presented themselves, of whom only three succeeded in passing the necessary examination.

FROM the *Japan Times' Overland Mail* we learn with satisfaction that the new municipal director of Yokohama has inaugurated his tenure of office by inviting tenders for a thorough system of surface drainage of the settlement—a most necessary improvement.

THE Controller-General of the Coast Guard has ordered a copy of "The Ship Captain's Medical Guide" (published under the authority of the Board of Trade) to be carried by all coast-guard cruisers; and the Canadian Government are taking steps for the introduction of this work into their own mercantile marine.

A BAZAAR was held by Lady Lampson, at Rowfant, the seat of Sir C. M. Lampson, Bart., for the benefit of the cottage hospital at East Grinstead, Sussex, on the 5th and 7th inst. Nearly £250 was received, including a donation of £20 from George Peabody, Esq.

THE Report of the Twentieth Annual Meeting of the Weymouth Sanatorium gives a satisfactory financial account of this institution, which is meant only for women and children. It is partly self-supporting, each patient paying seven or ten shillings per week. The Report would have been more interesting to us if it had given some account of the cases, and of the social condition of the patients.

THE Lancashire authorities are about to extend the accommodation for lunatics by the erection of an asylum to hold 700 inmates. It is stated that insanity is increasing in the county at the rate of 200 inmates a year, there being already something like 4500 lunatics in the various asylums and workhouses.

THE deaths registered in London last week numbered 1246, or 38 less than the corrected weekly average, and 106 fewer than were returned in the previous week. Typhus caused 64 of the total deaths.

A Bill is now before the Legislative Council of Antigua to make medical certificates of causes of death a compulsory adjunct to registration.

THE solution of the problem how to render the ample stores of Australian meat available for the English market is still engaging great attention in Australasia, and experiments are being anxiously prosecuted in the hope that success will eventually be attained.

THE practice of insuring the lives of young children in Burial Societies is fraught with danger to infant life, and ought to be checked. A recent article in the *Builder* shows how this sort of insurance is carried on in Liverpool by the agency of touters, who go about from house to house to pick up customers. And in London it needs but a casual acquaintance with the proceedings in the Coroners' Court to convince anybody that in too many instances cupidity, or perhaps want, proves stronger than the parental instinct.

BY the death of Mr. Patrick Foley John Kenny, of the General Dispensary, Birmingham, the post of Instructor and Examiner in Vaccination, for granting certificates of proficiency in vaccination, as required by the Privy Council, has become vacant. The appointment of a gentleman to fill the vacancy rests with the Privy Council. Mr. Kenny held the office for a short time only, having been appointed in June last.

THE Lord Chancellor has been pleased to place the name of Dr. Lory Marsh on the Commission of the Peace for the Borough of Nottingham.

THE Rev. D. F. Morgan, English chaplain at Mentone, gives a satisfactory account of the improved sanitary condition of the town. The authorities, Mr. Morgan says, have been stimulated in this direction by a letter which appeared in *The Times* three months ago, pointing out many things injurious to the salubrity of this favourite Mediterranean health-resort.

THE Brixham local authorities appear to have met with an unexpected check in regard to their projected water-supply. The Act obtained by the Commissioners only gives them power to purchase in their own district, whereas the waterway and source of supply are outside their limits.

THE *Lincolnshire Chronicle* refers to the prevalence of fever in a serious form at Louth. At Spalding, recent discussions on sanitary matters have had a beneficial effect in promoting necessary improvements.

THE deaths of 2404 persons were registered in the eight principal towns of Scotland during the month of August. This number is 549 above the return for the same month in 1867, and 418 in excess of the corrected average of the month during the last ten years. Diarrhœa, whooping-cough, scarlatina, fevers, and measles were prevalent.

WE shall be glad to learn that additional accommodation for the inmates of the Bucks County Lunatic Asylum will not long be wanting. At present it is said that several beds are obliged to be made up in the passages to meet the wants of the increased number of residents.

MR. N. F. BASSETT, house-surgeon to the Royal Cornwall Infirmary, having resigned his office, the thanks of the governors and a quarter's salary have been accorded to him in recognition of his services.

THE resignation of Mr. J. O. Mason, as a member of the board of the Birmingham General Hospital, has called forth an expression of warmest thanks from the board for his many and great services to the hospital during the last fourteen years.

THE Fourth Annual Report of the Tewkesbury Royal Hospital states that during the past year no less than sixty-two patients were admitted and received the benefits of the skilful attention and careful nursing which were there provided for them. Amongst these were some cases of severe operation, and in these especially the advantages of the hospital were well shown.

AT the weekly meeting of the Birmingham Natural History and Microscopical Society, held on Tuesday, the 1st inst., a very instructive paper, "On our Local Mosses," was read by Mr. James Bagnall, who described the various orders and sub-orders into which this tribe of plants is divided, and illustrated their classification by a collection of upwards of 130 species, gathered by himself, in the immediate neighbourhood of Birmingham, during the past twelve months.

THE STATISTICAL REPORT OF THE HEALTH OF THE NAVY FOR THE YEAR 1865.

THIS Report gives a favourable aspect of the sanitary condition of the Royal Navy during the year under review, inasmuch as there was a reduction, as compared with the preceding year, in the ratios of mortality, invaliding, and sickness. We have already, however, dwelt upon the statistical portion, and now turn to the scientific section of this Report, which demands some consideration on account of the intrinsic value of many of the contributions.

Although these Reports are not so large or comprehensive as those of the Army, they are not one whit inferior; indeed, the arrangement and type of the former are to be preferred. Dr. Mackay discharges his editorial functions admirably. In the observations upon the home stations we have a short account of the epidemic of scarlatina among the naval cadets in the training ship *Britannia* at Dartmouth. The disease appeared soon after the return of the cadets from their Christmas holidays, and proved, on the whole, very mild. Under the head of Diseases of the Brain and Nervous System, some interesting cases are detailed,—one of abscess of the cerebellum following a chronic discharge from the ear; another of purulent discharge and profuse hæmorrhage from the left ear, followed by symptoms of cerebritis caused by caries of the petrous portion of the left temporal bone; and a third of meningo-cerebritis, probably of pyæmic origin, in a patient who had received an injury of the right knee, which was followed by suppurative inflammation of the joint. A case is recorded of fatal obstruction of the bowels from typhlitis, in an officer the subject of gout, in which an abscess formed over the caput cæcum, and communicated with the bowel, the contents of which escaped freely through an opening made into the abscess. Accumulations of hardened fæcal matters, as is pretty well known, not unfrequently occur in this situation; after remaining for some time, they cause considerable irritation of the bowel, with increased flow of fluid from the lining membrane, by which the accumulation becomes softened and broken up, and a cure of the ailment is effected. If, however, this does not take place, inflammation and abscess ensue. In a case of this kind which came under our observation, the opening of communication with the interior of the bowel was very minute; but upon giving the patient vegetable and farinaceous foods the discharge from the abscess in the groin gave an unmistakable reaction with iodine, and small pieces of vegetable fibre, starch corpuscles, and the bran of bread were detected by microscopical examination.

The observations made by various medical officers on venereal diseases are well worth reading, particularly those on syphilis in the sections appropriated to home stations and China. Passing to the Mediterranean station, we naturally turn to the subject of cholera. It will be remembered that the army doctors and Dr. Sutherland arrived at exactly opposite conclusions on the subject of its introduction into Malta from Egypt. Whoever studies and considers all the facts, however, in an impartial frame of mind, cannot, we think, avoid the conclusion that the cholera was imported from Alexandria. We would advise our readers to peruse for themselves the reports furnished by the naval medical officers on the epidemic in question, and their very judicious comments on the system of quarantine as carried out in Malta, which was such that it could afford no protection to the inhabitants. We need pronounce no opinion as to the power of quarantine to arrest the geographical progress of cholera, or on the expediency of resorting to it with that view; but that any man with a logical mind should point to the experiment at Malta as a proof of its futility is surprising. Dr. Sutherland must know that no scientific man would proceed to test any scientific problem without taking every care to exclude all possible sources of error, and this certainly was not done at Malta. The official memorandum published by the Superintendent of Police relative to the facts established at Malta and Gozo is a valuable document. As regards Gozo, the history of all the recent outbreaks of cholera appears to have established the fact that these were always preceded by the introduction of the disease from the neighbouring island. It appears to us that the frequency of occurrences of this kind proves them to stand in the position of sequences, and not of mere coincidences; nor can we otherwise explain why the first cases of cholera at Malta appeared outside and close to the lazaretto. From what we remember of Fort Mancel and its position we should have thought it one of the least insanitary places in the island.

As the words "West Coast of Africa" catch the eye in turning over the leaves of the volume, we know too well that we shall meet with the old story,—viz., grievous sickness and loss of life by fever, continued remittent, intermittent, and yellow. This year proves no exception; on the contrary, we learn that the daily loss of service in 1865 from fevers was in a greatly increased ratio.

One of the best papers in the volume, and one which may be read by anyone interested in physical geography, natural history, and anthropography, is that by Surgeon H. Haran, on Somerset, Cape York, North Australia. It is a capital paper, and a very interesting one. We have already exceeded our space, and can only direct attention to the excellent contributions by Dr. Macdonald, F.R.S., which are illustrated by some well-executed coloured drawings, on a case of Relapsing Fever, with purpura, simulating cerebro-spinal fever; and others of a pathological bearing.

THE WATER AT GUILDFORD.

WE subjoin the two analyses made by Drs. Hassall and Letheby of the water from the public well at Guildford, and add that of Dr. Miller made last year, putting the results as closely as possible in a tabulated form.

	MILLER.	HASSALL.	LETHEBY.
Appearance ...	Nearly bright	Very clear ...	Quite bright
Colour	None ...	Slight tint ...	Pale bluish green
Taste and smell	None ...	None ...	None
Reaction	— ...	Alkaline ...	—
Hardness before boiling	15·1 ...	16·5 ...	15·0
Hardness after boiling	4·8 ...	5·25 ...	5·0
Total solids in grains per gal.	23·2 ...	22·362 ...	22·33
Fixed salts	22·7 ...	21·839 ...	22·13
Volatile matters ...	0·5 ...	0·533 ...	0·20 (?)
Nitric acid	1·20	Distinct evidences	1·02
Ammonia	0·01 ...	0·064 ...	0·016
Carbonic acid in cubic inches	16·30 ...	15·0 ...	Not given
Oxidisable organic matter	— ...	0·132 ...	0·027

Dr. Hassall is of opinion that the water is of considerable purity, and that the quantity of organic matter, and especially oxidisable organic matter, is very small; whilst Dr. Letheby, whose determination of nitrate of lime is unusually large, and by no means so clear as we could wish, states that there are unmistakable evidences of pollution from surface drainage. In his judgment the water is not at present unfit for human consumption, but may at any moment become so. Looking carefully at the three analyses, we are of opinion that it would have been desirable to confine the question submitted to the chemists to that of pollution by organic matters, as the quantity of lime and mineral matter is of secondary importance. As far as the evidence goes, it may be stated that there is some amount of pollution, but that it is small in quantity, and altogether insufficient to produce deleterious effects. The well itself must, however, be condemned because of its superficial character, and its evident communication with the wells in the town, many of which are capable of furnishing the nitric acid, ammonia, and organic matter which are to be found in all the analyses. It is not impossible that pollution may be at times much greater than at present, when ill effects would be likely to arise. The mere presence of nitric acid is regarded by some persons as a fundamental objection, and at the very least it affords a valid argument in favour of going to a deeper source.

We have since been informed that it has been resolved by the local Board of Health that Dr. Hassall should be requested to make a second analysis, the result of which ought to place

the possibility of error beyond doubt. A motion was likewise made to bore down to the greensand for a fresh supply of water; but, very unfortunately, as we think, this proposition failed to be carried, notwithstanding that it was ably advocated by Messrs. Jacob and Haydon.

THE MAURITIUS.

WE have had the opportunity of seeing two large and closely-printed documents from the Mauritius, containing the evidence of medical men and others on the epidemic which has prevailed in that island. It would be next to impossible to go through it all, nor is it necessary, for we are reminded of what Sheridan said when called to account for praising Gibbon's history as a luminous work. The wit replied, "I said voluminous," which is certainly the case here. Some of the evidence is very good, but much is both tedious and unsatisfactory.

As far as we can discover, however, we have already presented our readers with all the more important points. The fever is almost entirely of a malarious type, and its cause exists in the nature and character of the soil. It would appear that changes have been gradually going on, and mainly through the ignorance of the inhabitants in clearing away trees, in the total neglect of drainage, the removal and exposure of fetid mud to the action of the air, the neglect of watercourses, imperfect water-supply, &c., by which the ground was ready to give off malarious emanations on the first occurrence of certain meteorological conditions. Dr. O. Beaugeard and other medical men have clearly sketched out what these meteorological phenomena have been since the year 1865. Of course dirt, overcrowding, and poverty played a prominent part in aggravating the amount of disease and mortality. The loss of trees has probably influenced the rainfall, and facilitated the evaporation of moisture; and, from the absence of roots to bind it, the surface soil has been rendered as porous as a sponge. A great deal is required to make the place salubrious, and it must comprehend the planting of trees extensively, the proper cultivation of the soil, attention to water-courses, lagoons, and marshy neighbourhoods, an effective system of drainage, the application of the dry-earth conservancy wherever deficient water-supply and outfall render tubular drainage difficult, the establishment of new graveyards, and an effective and systematic sanitary police inspection. No doubt all this will cost money, and no assistance can be expected, we imagine, from this country; but the value of property has already deteriorated as much as from thirty to fifty per cent., and enormous sums have been spent in food and medicines for the sick, and in coffins and burials for the dead, so that the sooner the inhabitants make up their minds to set about doing something the better.

As to the troops, the barrack accommodation is insufficient and bad, and new barracks must be erected for them in the healthy elevated localities of the island. We understand that the 32nd Regiment, which has suffered much by the fever, was under immediate orders for embarkation to the Cape; but the order was countermanded, and a selection was made from the entire garrison of those men, women, and children who had suffered most from fever. The number selected amounted, we are informed, to about two hundred.

Correspondence.

"Audi alteram partem."

THE "FALLACY OF REFERENCE."

To the Editor of THE LANCET.

SIR,—The reference which, in my address before the British Medical Association at Oxford, I made to Professor Niemeyer's work on Medicine, furnishes a good instance of the great truth that it is unsafe to take any assertion as to a third writer at second-hand. Professor Niemeyer's words to which I referred may be found at p. 334 of the second volume of the seventh edition of his "Lehrbuch der Speciellen Pathologie und Therapie." They may be translated thus:—"According to an ingenious hypothesis of Du Bois-Reymond, which Dr. Möllendorf has worked out further, attacks of hemicrania depend upon a dilatation of the ramifications of the cerebral carotid of that side, which is the consequence of an abnormal innervation of its vessels from the uppermost cervical sympathetic ganglion. According to this view, the brain would, during the attack, be in a similar condition to that in which the ear of a rabbit is when the cervical sympathetic is cut through."

These words I took as an authoritative exposition of the theory of pain which I dissented from. To my great surprise, I found, some days after my address, from a translation of a paper of Du Bois-Reymond's in Brown-Séquard's Journal, No. xiii., 1861, the original of which appeared in Du Bois-Reymond and Reichart's Archiv of the previous year, that Niemeyer had adduced the name of the Berlin physiologist in support of exactly the opposite theory to that which this, his paper, advocates. In this paper Du Bois-Reymond, writing of a neuralgic affection from which he has suffered at intervals for many years, tells us that his view is that his hemicrania is "*a tetanus of the muscular coat of the arteries of the side of the head which is affected; or, in other words, a tetanus produced by the cervical portion of the great sympathetic of the right side.*" Indeed, as if to show how entirely the morbid affection corresponds with the results of physiological stimulation, and its cessation with the results of experimentally produced cessation of the action of the sympathetic, Du Bois-Reymond says: "When the fit approaches its termination, the right ear becomes red; I feel there a sensation of considerable heat, and the hand can appreciate the rise of temperature."

Surely, Whately could not have wished for a more happy illustration of his "fallacy of reference."

I am, Sir, your obedient servant,

Oxford, Sept. 7th, 1868. GEORGE ROLLESTON.

LITHOTRITY.

To the Editor of THE LANCET.

SIR,—I am really obliged to "Chirurgus" for finding a passage from my writings which will surely satisfy completely Mr. Coulson's friends. It is almost inconceivable that anyone should attack me for not saying this all over again in a short clinical lecture; yet so it is: why I could not was fully explained by me last week.

For the reasons given in my reply to Mr. Shillitoe, I wholly decline to enter on any comparison between lithotrity as performed by myself and by any other surgeon. Written description is useless when the methods of operating are patent to all. In the History of Lithotrity, I have always spoken of my friend Sir William Fergusson's instrument as an improvement, and have taken great care to identify him as its inventor.

I deny emphatically that I have "studiously ignored" that or any other proceeding, but to the best of my ability have uttered my honest convictions in dealing with these matters of extreme delicacy and difficulty; well knowing beforehand that it is impossible to satisfy everybody.

Touching the interest "Chirurgus" manifests as to the result of my operations, he must await the development of my own plans, which will certainly not be altered in the slightest degree by demands made in the style and manner he has adopted.

I am, Sir, your obedient servant,

Wimpole street, August 31st, 1868. HENRY THOMPSON.

To the Editor of THE LANCET.

SIR,—The sole object of my previous communications was to supply an omission in Sir Henry Thompson's lectures which I had hoped (erroneously, however, as it turns out) to have been unintentional,—viz., that Mr. Coulson was the first to introduce into this country an operation, the principles, if not the details, of which Sir H. Thompson now adopts.

The able letter of "Chirurgus" in your impression of to-day sets the question at rest. He quotes the following passage in a Lettsomian lecture by Sir Henry Thompson, published in THE LANCET of March 22nd, 1862:—"To our distinguished President (Mr. Coulson) is due the merit, I believe, of first advocating in this country the method of Civiale, and of first recognising its larger capabilities as compared with the older method." But "Chirurgus" adds: "It should be remembered that this lecture was delivered before the Medical Society of London, of which Mr. Coulson was then President; but it

may be noted that in republishing these lectures in the form of a work called "Practical Lithotomy and Lithotrity," at page 179, Sir H. Thompson has altered the foregoing sentence into: "Having tried both methods myself, I have no hesitation in preferring the former." And the same disengenuousness in not mentioning Mr. Coulson's name in connexion with the operation has been observed till the present time; hence my reason for addressing you.

Allow me, in conclusion, to state that I emphatically deny that Sir H. Thompson's operation differs in any essential respect, either as regards manipulations or success, from that now performed by most hospital surgeons.

I am, Sir, your obedient servant,

August 29th, 1868. BUXTON SHILLITOE.

*** We can insert no more letters on this subject.—ED. L.

THE HOLOCAUST AT ABERGELE.

To the Editor of THE LANCET.

SIR,—I have just had an opportunity of reading the interesting and valuable remarks contained in THE LANCET of August 29th on the immediate cause of death in the cases of the ill-fated thirty-three. I wish to express my concurrence in your opinion that death was due to a twofold cause—(1) the shock of a suddenly and intensely elevated temperature; and (2) asphyxia from the inhalation of the products of the more or less complete combustion of the hydrocarbon, paraffin.

I was inclined at first to the belief that the paraffin, vaporised by the heat as well as by currents of air, had acted rapidly as an anæsthetic I had previously obtained evidence that this substance possessed some power of this kind, for in the course of my investigations on anæsthetics I persistently inhaled paraffin vapour to the dizziness of (as it seemed) commencing narcotism. I endeavoured to test the anæsthetic power of paraffin in the case of animals. Mr. John Lees, of Upper-street, assisted me in making the observations.

1. On August 29th I placed a healthy guinea-pig beneath a bell-glass of 1600 cubic inches capacity, and forced into the glass an atmosphere impregnated, at the ordinary temperature, with paraffin. No sign of anæsthesia resulted.

2. I repeated the experiment, facilitating the vaporisation of the paraffin by placing the vessel containing it in hot water. By all our methods, though the bell-glass became filled with a highly-charged atmosphere, it was impossible to induce a sign of anæsthesia.

I was hence compelled to conclude that paraffin is practically no true anæsthetic. consider that the symptoms produced upon myself by the agent were alone due to its nauseating qualities.

3. I thought it well, however, to try the effect of burning paraffin. Accordingly, I placed a rat in an iron cage, and surrounded it by a circle of lint soaked in paraffin afterwards ignited. I hoped that the animal would be sufficiently far from the heat to be uninjured by it; but though it evinced no sign whatever of any impairment of function, its feet suffered from the heat communicated to the metal. It was immediately chloroformed and killed.

From this experiment I should conclude that the asphyxiating elements at Abergele, where the combustible fluid was in great excess, were contained in the black smoke—in the products of the incomplete rather than in those of the complete combustion.

Whether shock or asphyxia, or both united, were the immediate cause of death, there can be little doubt that the victims were spared those horrible tortures with which death from fire is usually associated.

I am, Sir, your obedient servant,

City-road, Sept. 1868. A. ERNEST SANSOM, M.D.

TREATMENT OF HÆMORRHOIDAL AFFECTIONS.

To the Editor of THE LANCET.

SIR,—In THE LANCET "Mirror" of Sept. 5th there are recorded some very interesting cases of hæmorrhoidal affections treated by Mr. Henry Smith, of King's College Hospital. As I have had some experience in the employment of the clamp since I first had the opportunity of witnessing Mr. H. Smith's operation in the theatre of the hospital to which he is attached, I shall be obliged by your giving insertion to this communication on the subject.

I have operated upon thirty-three cases by means of the clamps; some of these were of a formidable character, and in all the cases obtained the most complete success.

In one case, that of a Colonel B., who, on his return from India, broken down in health, anæmic, emaciated to an extent I have never before witnessed from repeated loss of blood, I found a large pendulous hæmorrhoidal excrescence, very much resembling in shape a moderate-sized bunch of grapes, with a large exposed surface of intestinal mucous membrane. Having placed the patient under the influence of chloroform I removed the whole of the mass, and four tolerably large portions of mucous membrane, by means of three clamps, without the loss of more than an ounce of blood. The patient was confined to bed for five days only, never having experienced a single symptom calculated to interfere with his rapid recovery. At the expiration of the time I have mentioned the gentleman was able to take carriage exercise; he made a rapid convalescence, and he is now in the enjoyment of perfect health.

The clamp modified and perfected by Mr. H. Smith is admirably adapted for the purposes for which it is advocated, and I feel persuaded that any surgeon who will take the trouble to employ the clamp method of removing piles will find that it possesses great advantages over the barbarous practice of the ligature operation. The result of my experience testifies to the total absence of secondary complications in the former, and to very frequent retention of urine and a return of the disease after operative procedure in the latter.

The toy-like ivory appendage to Mr. H. Smith's instrument I regard as unnecessary, and only calculated to increase the already extravagant charges of the instrument maker.

I am, Sir, your obedient servant,

Southampton, Sept. 1868. JOHN WIBLIN.

THE DIRECT REPRESENTATION OF THE MEDICAL PRACTITIONERS IN THE MEDICAL COUNCIL.

To the Editor of THE LANCET.

SIR,—Dr. Andrew Wood's remarks on the speech I recently delivered at Oxford, have convinced me that I unintentionally erred in saying that *all* the representatives of the medical corporations in the Medical Council were against the profession on the vital question of direct representation. The fact is, I had been so deeply impressed by your report (THE LANCET, July 11, p. 46, *et seq.*) of Dr. Wood's statesmanlike speech in the Council on behalf of the profession, that I instinctively assumed the orator to be a University delegate. As a member of the Royal College of Surgeons of England myself, I did not suspect, until expressly told, that a speech so liberal and able as Dr. Wood's could be delivered by the representative of the Council of a British College of Surgeons.

When I said that medical corporations who oppose the profession must be "subjugated," I did not mean destroyed, as Dr. Andrew Wood assumes, but reduced to obedience to the will of the profession for its own advancement and for the public good.

Touching the British Medical Association, I accept Dr. Wood's position. It stands in need of reform quite as much as the medical corporations. As a governing body, the Council of the Association is a myth, while its Committee of Council is practically an irresponsible oligarchy, constituted and ruling in direct violation of the very first principles of representative government.

Confidently relying on your support as one of the foremost champions of medical reform, I remain, Sir,

Your obedient servant,

Birmingham, Sept. 6th, 1868. SAMPSON GAMGEE.

HYSTERICAL VOMITING.

To the Editor of THE LANCET.

SIR,—The correspondence which you have published on this subject shows that the above term has been erroneously applied to some cases in which uterine irritation did not exist, and that specific source of irritation not to have been discovered in some others in which the term would have been appropriate.

Instances will occur to the mind of almost every practitioner in which the term hysterical paralysis has been as loosely and incorrectly applied as that of hysterical vomiting. The faulty nomenclature which calls for correction in the one case should not be allowed to continue in the other.

Fully granting that uterine irritation did exist and was the cause of much mischief in the case mentioned by Dr. J. Henry Bennet, allow me to ask whether derangement of the uterus, in some form or other, is present in every case of so-called hysterical paralysis? Dr. Henry Bennet remarks of his patient that "a few days before she died she recovered the use of her lower limbs completely, *which satisfactorily proved that the paralysis was of the hysterical character.*" Are we to infer from this that every case of temporary paralysis, as distinguished from permanent, occurring in females, is of hysterical origin? Is it a fact, or only an assumption, that displacement, or other morbid conditions of the uterus, do actually cause paralysis? Is the disease in question essentially dependent on that cause of special irritation, or on some general condition of the nervous system?

The obscurity and indefinite application of the term hysteria appertains to the profession rather than to any individual member of it; and the special experience of Dr. Henry Bennet well qualifies him to explain a matter with which the accidental circumstance of his letter has led me to associate his name. I hope he will understand that my object in writing is not to enter upon a controversy, but simply an earnest desire to call attention to an existing source of error.

I remain, Sir, your obedient servant,
D. DE BERDT HOVELL, F.R.C.S.E.

Five Houses, Clapton, Mid., Aug. 31st, 1868.

A HUMAN TRIPOD.

(FROM A CORRESPONDENT.)

OBSERVING in THE LANCET of August 29th a brief notice of a four-legged female child born in America, I forward an account of an almost precisely similar deformity in a child of seven whom I saw during a brief visit to Dieppe last week. The child was exhibited in an itinerant show by her father and mother to all comers, and of course clothed, for a few *sous*; but I found no difficulty in obtaining a *séance particulière* for the moderate fee of a couple of francs, at which I had full opportunity of examining this curious *lusus naturæ*.

Blanche Dumas was born at Ségry of perfectly healthy parents, who had already had two healthy children, and nothing special was noticed during the pregnancy of the mother which resulted in the birth of this monstrosity. The child is fairly grown for her age, and appears acute and sensible. When dressed the most remarkable feature is the great width of the pelvis, and the fact that the left foot is clubbed, which, however, does not prevent the child walking with facility. On closer examination, it appears that there are two pelves fused in the median line, and that in connexion with these there are *two pairs* of lower limbs. The right leg of the right pelvis is perfectly developed, but the left leg is quite rudimentary, being represented only by a nodule of fat. Both limbs of the left pelvis are fairly developed, and are both club-footed. It is the left of this pair that is used in progression, the right being twisted in front of the other, and not reaching the ground. The development of the genital organs is most remarkable. In the normal position on the left side there are female genitals, urethra, and anus complete. On the right side there are genitals and urethra, but no anus, there being merely a depression in the skin at the point. The child micturates through both urethras, and evacuates the bowels by the single anus. In addition, however, to these female genitals, there is at the junction of the pelves, and at the posterior part, a well-formed penis, and below this is a cicatrix, resulting, as the mother says, from some operation performed in Paris, by which a scrotum which existed at birth was removed. The penis was so sensitive that examination was not permitted; but as at birth the child micturated by some orifice in connexion with it which is now closed, I imagine that there must have been an hypospadiad opening which the operation has successfully closed. The child now wears a sort of bandage to support the part, and no urine passes.

The child has been exhibited in Belgium and France, and has been examined by various medical men of eminence. Professor Crocq, of the University of Brussels, regards the deformity as an instance of interposition of an abnormal pelvis between the bones of the natural pelvis. Professor Schwrann, of Liège, on the other hand, regards the deformity as an instance of double pelvis, classing it in the category of double monsters (*autosites non par parasites*) of M. Geoffroy Saint-Hilaire. This latter view appears to be borne out by the arrangement of the toes of the supernumerary leg, which shows it to be a right limb, and to belong, therefore, to the left pelvis.

I may remind the readers of THE LANCET of the remarkable case of the Portuguese youth described at length in that journal of July 29th, 1865, who exhibited the curious malformation of a third lower limb with double male genital organs well developed.

August 31st, 1868.

Medical News.

INDIAN MEDICAL SERVICE.—The Military Secretary, India Office, presents his compliments to the Editor of THE LANCET, and begs to enclose a list of the candidates for her Majesty's Indian Medical Service who were successful at the competitive examination at Chelsea in February, 1868, and who have undergone a course of instruction at the Army Medical School, together with the total number of marks obtained at the examinations at Chelsea and Netley.

	Studied at	*No. of Marks.*
Cunningham, D. D.*	Edinburgh	6945†
Whitwell, H.	do.	5550
Cameron, A.	Glasgow	4700
Evans, R.	Edinburgh	4345
Carmichael, J. C. G.	Aberdeen	4240
Harvey, W.	London	3975
Grant, A. G.	Aberdeen	3925
Hay, G. W. R.	Edinburgh	3925
Jackson, W.	do.	3915
MacLaren, G. G.	do.	3900
Monteath, J. J.	Edinburgh and Ireland	3698
Roche, A.	Ireland	3676
Stevens, R. H.	Edinburgh and London	3667
Martin, P. R.	Ireland	3430
MacDermott, P. J.	do.	3425
Dalgavins, A. E.	Edinburgh	3367
Mookerjee, P. N.	do.	3355
McArthur, A.	Aberdeen	3230
Fitzpatrick, J. F.	Ireland	3174
Archdall, H. M. D.	Edinburgh and Ireland	3125

* Obtained the Herbert Prize. † Maximum 6000.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 3rd inst.:—

Glencross, Frederic John, Devonport.
Lake, George Robert, Leamington.
Roberts, William Lake, Spilsby.

On the 10th inst.:—

Brookhouse, Charles Turing, Dartford.
Ferguson, Daniel William, Bridlington.
Minter, Edward Withers, Southsea, Hants.
Shorter, Henry Goldsworthy, Hastings.

The following gentlemen also on the same day passed their first examination:—

H. B. Wilder, S. F. Solly, and Charles McCann, of Westminster Hospital.

AN Order in Council has been issued prohibiting the landing of hay from the United States at any port in the United Kingdom without a special licence under the authority of the Privy Council. The prevalence of cattle disease in America renders this precautionary measure absolutely essential for the protection of our stock.

ST. PANCRAS.—The vacant post of medical officer to the female department of the workhouse has been filled up by the transfer of Mr. Evans from the male department, which is therefore now vacant. The emoluments of the office are the salary of £150 a year, with apartments and rations; and candidates must possess what the guardians term the "legal qualifications." The want of a mortuary has long been felt in the parish, and the vestry having refused to erect one under the provisions of the Sanitary Act, the Board of Guardians have obtained the consent of the church trustees, and a faculty has been obtained from the Bishop of London for the erection of a mortuary in Old St. Pancras burial-ground. The result of the improved administration of the Poor Law in the parish is now becoming apparent in the reduction of the rates; the new Board of Guardians has not only paid off a debt left by their

predecessors of £8019, but their requirements for the current half year are greatly below those of the same period of last year. Mr. Rouch, one of the sanitary inspectors, has reported to the vestry that he found, at No. 15, Park-street, Camden-town, a workshop occupied by forty-eight persons, who had breathing space for only twenty-five, being 300 cubic feet each, and several children under thirteen years working twelve hours a day.

EPIDEMIOLOGICAL SOCIETY.—At the annual meeting the following office-bearers were elected for the session 1868–69:—President: Dr. E. Seaton. Vice-presidents: The Earl of Shaftesbury, K.G., Lord Lyttelton, the Right Hon. W. Cowper, M.P., Sir John Thwaites, Dr. Gavin Milroy, Dr. Acland, Dr. Bryson, Mr. Edwin Chadwick, Dr. Chowne, Dr. William Farr, Sir W. Jenner, Bart., Dr. Thomas G. Logan, Sir J. Ranald Martin, Dr. B. W. Richardson, Mr. Simon, Sir Thomas Watson. Treasurer: Dr. Camps. General Secretary: Mr. J. N. Radcliffe. Secretary for Navy: Dr. Mackay. Secretary for Army: Dr. Francis Bowen.

THE latest advices from the West Indies, brought by the *Shannon*, give a favourable account of the public health. Cholera was decreasing in Havannah.

TWO persons have lately died in Yorkshire from the effects of partaking, when in a weak state of health, of apple dumpling made of putrid suet, which had been chopped and salted four months previously. A servant girl of stronger constitution, who had also eaten of the pudding, has recovered from the effects of the unwholesome dish.

THE local board of Southmolton, Devon, have at length determined to carry out an entirely new system of drainage and water-supply. The sewage is to be filtered and utilised.

YORKSHIRE SCIENCE CLASSES. — The scarcity of teachers in Yorkshire duly qualified to give instruction in science in accordance with the regulations of the Department of Science and Art has led the Council of the Yorkshire Board of Education to concert measures for the supply of the deficiency. One important step is the organisation of Schoolmasters' Science Classes, to meet on the afternoons of Saturday during the winter, for the study of special branches of science. The first class will be opened in Leeds on Saturday, October 3rd, and the course will consist of twenty-eight lessons in inorganic and organic chemistry by Mr. G. Jarmain, head-master of the Science Schools at Halifax and Huddersfield. Classes of a like character will be formed forthwith in Sheffield and Stockton-on-Tees.

GREEN PIGMENTS.—Green pigments have been in such bad odour for years, on account of their real or imagined poisonous influence, that chemists have laboured hard to find a form of the favourite colour that shall be above suspicion. Success seems to have crowned their experiments at last; for we are told that a new preparation of a salt of chromium yields a green colouring powder that leaves little to be desired. It is brilliant in tone, perfectly harmless, and possesses other requirements of technical character. It will be known, when it is known, as "imperial green."—*Once a Week.*

THE ABERGELE CATASTROPHE. — The Coroner so bitterly attacked by Lord Farnham and Sir Henry Edwards, M.P., for incapacity, has written and circulated an exceedingly temperate and, we think, extremely successful defence of himself, in which he says that he refrained from committing for contempt of Court those who so openly asserted his incapacity from respect for the excited feelings of men terribly and recently afflicted,—and if so, what was wanting in the judge was creditable to the man and the Christian. He points out that Lord Farnham's solicitor—and after Lord Farnham's arrival in person his lordship himself—wanted him to give a certificate of burial *by name* for a body which it was entirely impossible to identify as that of the late Lord Farnham, and which, in fact, turned out to be a female's; and that when Sir Henry Edwards accused him of favouritism in granting such a certificate to a poor widow, Mrs. Cripps, for the burial of her husband, Sir H. Edwards did not know what he was saying, since the body of Mr. Cripps was clearly identified. On the whole, the Coroner's defence of himself for everything, except, perhaps, sufficient judicial firmness with his excited accusers, was adequate, dignified, and temperate. — *The Spectator.*

BELFAST. — The President and members of the Ulster Medical Society have entertained the medical officers of the Channel Fleet, with those of the garrison, at dinner in the Clarence-place Rooms, Professor Cuming, the President of the Society, in the chair. The guests present were:—Surgeon Gimlett, M.D., and Assistant-Surgeon Nicoll, M.D., H.M.S. *Minotaur;* Surgeon Hamilton, M.D., H.M.S. *Warrior;* Assistant-Surgeons Goodall, M.D., and Putsey, H.M.S. *Bellerophon;* Assistant-Surgeon Charlesworth, H.M.S. *Defence;* Assistant-Surgeon Hollingsworth, H.M.S. *Helicon;* Military—Surgeon-Major Bacot, Belfast; Surgeon M'Gill, M.D., 68th Regiment; Assistant-Surgeon Wilson, M.D., 28th Regiment. Members of the Ulster Medical Society present: Dr. Stephenson, Dr. Cuming (chairman), Dr. Whitaker (vice-chairman), Drs. Patterson, Seaton, Reid, James Moore, John Moore, Wheeler, Dill, Gordon, H. S. Ferguson, Stewart, Barnett, Fagan, H. Brown, Murray, M'Crea, N. Moore, H. M. Johnston, Murney, J. W. Smith, and Hill. The usual loyal and patriotic toasts were given, in conjunction with many others special to the occasion.

DRS. FOURNIER and OLLIVIER lately brought before the Medical Society of the Hospitals of Paris the case of a girl aged fourteen, who for the last four years had been employed in a lucifer match manufactory. She was admitted into the Hôtel Dieu on the 3rd of March, 1867, with considerable swelling of half the face, and fetid and sanguineous salivation, and died three days afterwards. She had been ill only for about four days, first complaining of pain in the jaw, and inability to open her mouth. The symptoms had rapidly increased, and when she entered the hospital the prostration was already alarming. This typhoid state increased in spite of active remedies, and she died as just stated. Of course this was only the first stage of necrosis, which, by its severity, proved fatal. The lower maxilla could not be examined.

Obituary.

SURGEON-MAJOR JUDD, F.R.C.S., &c.

WE regret to have to record the death of this old and much respected member of the profession. He was for many years surgeon in the Guards, and surgeon in ordinary to H.R.H. the late Prince Consort. Mr. Judd died at his residence in London on the evening of the 10th inst. He joined the Fusilier Guards so long back as 1818, and served with distinction in that regiment for more than forty years. He was well known for his contributions to medical as well as general literature; and he was the intimate friend and fellow-student of Brodie, Lawrence, and many other ornaments of the profession who have passed away before him. Nor should the profession be unmindful that, at the sacrifice of his own interest in high quarters, he was the first to take up the cause and advocate the claims of the army surgeon. To him, also, are the British infantry really indebted for the abolition of the old cross-belt, and the substitution of the present improved manner of carrying the cartouch-box and ammunition. He retired from the profession some few years back in consequence of failing health, and for some time past has been under the medical care of his friend Dr. Scott, of Upper Woburn-place. Mr. Judd was interred at the Brompton Cemetery on Wednesday last.

MEDICAL APPOINTMENTS.

BUBB, J., M.R.C.S.E., has been elected Surgeon to the Cheltenham and Gloucestershire Ophthalmic Infirmary, vice John Davies, F.R.C.S.E., deceased.

DODD, E., M.R.C.S.E., has been appointed Medical Officer for District No. 2 of the Axbridge Union, Somersetshire, vice J. Hardwick, M.R.C.S.E., resigned.

CALDWELL, J., L.R.C.P.Ed., has been appointed Medical Officer to the Shotts Iron Works, Motherwell, Lanarkshire, vice J. Rattray, M.D., deceased.

DAVIDSON, A. DYCE, C.M., M.R.C.S., has been appointed Surgeon to the Aberdeen Ophthalmic Institution, vice J. R. Wolfe, M.D., F.R.C.S., resigned.

EVANS, G. F., M.D., has been elected President of the Birmingham Medical Benevolent Society for the ensuing year.

FENDICK, Mr. G., has been appointed Resident Surgeon to the Bristol Dispensary, vice E. E. Phillips, L.R.C.P.Ed., resigned.

FRY, J. W., M.R.C.S.E., has been appointed Medical Officer for District No. 4 of the Malling Union, Kent, vice S. Norton, M.D., resigned.

GRAHAM, T., M.D., has been reappointed Surgeon to the Abbey Poor-house and Lunatic Asylum, Paisley.

GRAY, A. C., M.D., has been appointed Surgeon-Accoucheur to Hudson's Charity, Selby, vice J. Burkitt, M.R.C.S.E., deceased.

HOCKLEY, Mr., L.D.S., has been appointed Dental Surgeon to the French Hospital, London.

JOHNSTON, Dr. J., has been appointed Physician to Queen's Hospital, Birmingham.

KENNELLY, Dr. M., has been appointed Apothecary to the City of Limerick Dispensary, vice S. MacMahon, M.D., resigned.

LEE, B. J., L.S.A.L., has been appointed Assistant-Surgeon to the Clay-cross Colliery Infirmary, Derbyshire, vice J. P. Byrne, L.K.Q.C.P.I., appointed Medical Officer to the Aughrim Dispensary District of the Rathdrum Union, Co. Wicklow.

LONGBOTHAM, G., M.R.C.S.E., has been appointed Medical Officer for the Greatham District of the Hartlepool Union, Durham, vice J. Allanson, M.R.C.S.E., resigned.

MORGAN, F., M.R.C.S.E., has been appointed Certifying Surgeon under the provisions of the Factory Acts for the District of Culmstock and neighbood, Devonshire.

MORTON, J., M.B., has been appointed Medical Officer of Health for the Town of Guildford.

PEYMAN, A. P., M.R.C.S.E., has been appointed Medical Officer for District No. 2 of the Marlborough Union, Wilts, vice J. Chamberlaine, M.R.C.S.E., resigned.

ROE, W., M.D., F.R.C.S.I., has been appointed Assistant-Master to the Coombe Lying-in Hospital, Dublin.

SMITH, Mr. F. A. A., has been elected Assistant-Surgeon to the Cheltenham and Gloucestershire Ophthalmic Infirmary, vice J. Bubb, M.R.C.S.E., resigned, and appointed Surgeon.

TODD, Dr. J., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Drumquin Dispensary District of the Omagh Union, Co. Tyrone, vice W. Sproule, M.R.C.S.E., deceased.

VICKERS, Mr. W., has been appointed Apothecary to the Male Lock Hospital, Dean-street, Soho-square, vice Lyster, resigned.

WALSH, T. W., F.R.C.S.E., has been re-elected Surgeon to the Worcester Infirmary for seven years.

WRIGHT, Mr. J. R., has been appointed House-Surgeon to the Male Lock Hospital, Dean-street, Soho-square, vice Dean, whose appointment has expired.

Births, Marriages, and Deaths.

BIRTHS.

BERNARD.—On the 9th inst., at Sidney House, Stapleton-road, Bristol, the wife of D. E. Bernard, L.R.C.P.Ed., M.R.C.S.E., of a son.

CORBETT.—On the 6th inst., at Sheffield, the wife of Dr. W. H. Corbett, Staff Surgeon Army, of a daughter.

DUDGEON.—On the 7th inst., at Montagu-square, the wife of Dr. Dudgeon, of a daughter.

EDWARDS.—On the 28th ult., at Belmont, Shrewsbury, the wife of Henry Nelson Edwards, M.R.C.S., of a daughter.

GIBBON.—On the 15th inst., at Oxford-terrace, Hyde-park, the wife of Dr. Gibbon, of a daughter.

PROWSE.—On the 4th inst., the wife of Wm. Prowse, M.R.C.S., of Amersham, of a daughter.

ROE.—On the 28th of July, at the British Hospital, Callao, Peru, the wife of Thomas A. Roe, M.D., Surgeon-Superintendent, of a daughter.

SMITH.—On the 7th inst., at Surrey Villa, Kennington-road, the wife of Septimus W. Smith, L.F.P. & S. Glas., of a daughter.

STONE.—On the 6th inst., at Livesey-street, Manchester, the wife of C. H. H. Stone, M.R.C.S.E., of a son.

MARRIAGES.

COLLINS—HARRISON.—On the 27th ult., at Llandudno, Dr. Collins, of Leamington, to Emma Elizabeth, second daughter of W. Harrison, Esq., of Norton Hall, Staffordshire, and of Eastland House, Leamington.

HUTCHINGS—WACHER.—On the 10th inst., at the Parish Church, Herne, Henry G. Hutchings, M.R.C.S.E., of St. George's-place, Canterbury, to Mary Ellen, third daughter of Wm. Wacher, Esq., of Eddington, Kent.

SAVAGE—WALTON.—On the 9th inst., at the Church of Nent Head, Cumberland, G. H. Savage, M.D., the second son of Mr. W. D. Savage, of Brighton, to Margaret, fifth daughter of the late Jacob Walton, Esq., of Greenends, Alston.—No Cards.

SKENE—THOMSON.—On the 8th inst., at Picardy-place, Edinburgh, William Skene, M.D., L.R.C.S.Ed., F.F.P. & S. Glas., of Troon, to Euphemia, younger daughter of the late Wm. Thomson, Esq., Solicitor.

DEATHS.

COUSINS.—On the 1st inst., Edward Cousins, F.R.C.S.E., M. & L.S.A., of Camden-road, N.W., aged 45.

DOYLE.—On the 17th of July, at Madras, James T. J. Doyle, F.R.C.S.I., Assistant-Surgeon Madras Army, aged 37.

EARL.—On the 29th ult., at Huxley-green, near Chester, Briscoe Earl, Surgeon, formerly of Tarvin, aged 74.

GRANT.—On the 3rd inst., at Alderney, the wife of R. A. P. Grant, Esq., Assistant-Surgeon 43rd Light Infantry, of a son, who survived its birth only a short time.

HILDITCH.—On the 10th inst., at The Fields, Landbach, Cheshire (the residence of his father), John Hilditch, M.R.C.S.E., L.S.A., of Brighton, aged 36.

JEFFREYS.—On the 1st inst., at Wisbeach, R. Jeffreys, Surgeon (retired), aged 74.

ROGAN.—On the 30th ult., at the Londonderry County Lunatic Asylum, Dr. W. F. Rogan.

TAYLOR.—On the 5th inst., Charles C. Taylor, M.R.C.S.E., of Rawtenstall, aged 49.

THOMSON.—On the 6th inst., W. T. Thomson, L.S.A.L., of Guisborough, Yorkshire, aged 66.

VARAH.—On the 11th inst., G. Varah, of Monmouth-street, Sheffield, L.S.A.L., aged 55.

WINDSOR.—On the 1st inst., John Windsor, F.R.C.S.E., of Piccadilly, Manchester, aged 81.

Medical Diary of the Week.

Monday, Sept. 21.

ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 1½ P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Sept. 22.

ROYAL FREE HOSPITAL.—Operations, 9 A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Wednesday, Sept. 23.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
OPHTHALMIC HOSPITAL, SOUTHWARK.—Operations, 2 P.M.

Thursday, Sept. 24.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Friday, Sept. 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL FREE HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Sept. 26.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

To Correspondents.

STUDENTS' LUNCHEON-ROOMS.

WE have received a letter from *Mr. Henry Arnott*, pointing out the great advantage that the students of the various hospitals would receive were some arrangements made by which they might obtain a good meal at midday, at a cheap rate, without the necessity of leaving the premises. We think the question well worthy of consideration. There would, we apprehend, be little difficulty experienced at any of the hospitals in setting a room apart for the use of the students. The real difficulty lies in the uncertainty and smallness of the supplies needed, and we fear that it would be found impracticable without a collegiate establishment to furnish anything more than bread-and-cheese and a glass of ale. However, we recommend the proposition to the authorities of the different hospitals who have not already made some arrangement with this object in view.

Prof. Laycock's paper, "Suggestions for rendering Medico-Mental Science available to the better Administration of Justice, and the more effectual Prevention of Lunacy, Vice, and Crime," will, if possible, appear next week.

Mr. McKenzie, of Cheadle, requests us to state that an advertisement by a grateful patient in the *Staffordshire Advertiser* of the 12th instant was inserted entirely without his knowledge or approval.

"THE ARTFUL DODGER."

A Country Surgeon would like more particulars from "A Victim" as to how Widow W. appeals to the public by means of the marks of cupping on her back and abdomen. He gives a remarkable instance of a man once coming to him with a deep unblushing phagedenic ulcer of the glans, with the story that he came by this misfortune from taking shelter in a barn, and being attacked by rats, which selected this spot for a sweet morceau!

Mr. James Cheese.—Apply to James Smith and Co., 52, Long-acre.

THE MEDICAL CLUB.

To the Editor of THE LANCET.

SIR,—The suggestion of the Honorary Secretary of the Medical Club, in your impression of September 5th, to increase the capital of the Club in the form of shares, I think is a most excellent one, and I sincerely hope it will be the means of inducing all the members to continue their support.

I have no doubt many others like myself would be glad to know how and to what extent it would be necessary to increase the subscription of the original members, provided a sufficient sum is subscribed in the form of shares to pay off the present claims against the Club.

Your obedient servant,
September, 1868. A LONDON MEMBER.

SWIMMING-BATHS.

UNDOUBTEDLY the establishment of swimming-baths, easily accessible as regards cost and situation, would be a great boon to the population of the metropolis and of our large towns generally. Nor ought there to be much difficulty about the provision of such valuable hygienic adjuncts in any place which, like London, has large ornamental waters in addition to a noble river, some parts of which might be readily utilised for the purpose. If, as is not improbable, the lapse of a few years should witness a revival of the ancient system of aqueducts on a grand scale for our water-supply, it is allowable to hope that an approximation to the practice of older peoples in regard to the establishment of public baths will come to pass also.

Mrs. Alexander should send the fly-paper to a professional chemist for examination.

WE concur with the *Australian Medical Journal* in the view taken of the conduct of Dr. Day and Mr. Sibley. That they should have been censured by a jury presided over by a medical Coroner is certainly remarkable. Dr. Day seems to have acted on a very clear and rational view of the case, and cannot be blamed for having had another urgent duty at a distance.

Dr. Henry Williams.—Next week.

Mr. M. Joseph Wallace would fortify the claims of his prophecy of the medical millenium to the respect of medical men by stating his professional qualifications. We do not get any light on these in either the Medical Register or the Medical Directory.

A Constant Subscriber.—We cannot see how our correspondent can be exempted from the operation of the new Pharmacy Act. He has no rights as a medical practitioner according to the statement he sends us.

A PARISH DOCTOR'S DREAM: A POEM.

WE cannot but think that the "Parish Doctor" would have done greater justice to his own valuable experience, and a greater kindness to the poor, if he had chosen prose as the vehicle of his thought.

An Intending Candidate.—Chemistry does not form a separate subject of examination in the army medical service.

Edinburgh.—1. If our correspondent will apply to Messrs. Kelly and Piet, Baltimore, he may perhaps obtain a copy of the regulations of the Medical Department of the United States Army. — 2. No, he could not practise in Spain or Italy without first obtaining a licence.

A. B. Y.—Mr. Sparks' address is 28, Conduit-street, Regent-street.

THE WATER THEORY OF CHOLERA.

To the Editor of THE LANCET.

SIR,—Admitting as I do with Dr. Farr the importance of purity in our water-supply, and giving him as I do all praise for the indefatigable labour he has bestowed on his researches into its condition, I still must withhold my assent to the conclusions that he has arrived at—viz., that the great mortality occasioned by the cholera in the Eastern districts was owing to the impurity of the water supplied to them. I think there were other causes at work—causes of equal, if not greater, potency for evil than that; and until they are eliminated, I think we should be careful as to our decision, for it is a most important question.

In the year 1854 we were visited by cholera, and the death-rate in this parish (St. James's) like that in what has been termed the cholera fields of the East, assumed, when compared with that of the rest of the metropolis, a fearful ascendancy. This ascendancy was so marked, the area in which it occurred so limited, it was so exceptional, that it was impossible not to conclude that it was owing to some exceptional condition. Then, as in the later outbreak, the water was supposed to be at the root of the mischief, and the pump in Broad-street was condemned as the disseminator of the poison. Now, setting aside the difficulty of believing that all the population of the parish were in the habit of fetching water from this pump, when every house was supplied with water, good for all purposes, by the Water Company—setting this aside, the question arises, Was this pump an exceptional thing? Was it of recent construction, or had it been there for years? Why, it had been there for years, and though we had been visited by cholera before, yet the mortality of the parish had not on those occasions exceeded that of others.

Then what was the exceptional condition? In my opinion it was the sewers. There was the only thing that I could fix on that had been altered. New sewers had in the early part of the year been made throughout most of the streets of the parish. I had watched their construction with great interest; they were of great depth, and beautiful workmanship; but the thought struck me, as I did so, as to how the houses were drained in the meanwhile. I saw that the old sewers were broken up and gone, and I felt that unless some means were extemporised to supply the deficiency, the interval between their destruction and the completion of the new would be a fearful one for the locality. Well, the work was completed, the streets were made good, and all bore the aspect of cleanliness and health; but it was a deception.

At this time a gentleman was staying with me who was prosecuting his studies at the Middlesex Hospital. His way from my house to the hospital lay through those very streets that were afterwards the scene of such sad mortality, and he many times told me that the effluvium that pervaded them was so sickening, so offensive, that he felt sure some fearful fever would soon show itself there. The cholera came, and his words were made good by the intensity it assumed there. This was the exceptional condition. The old sewerage was disturbed or destroyed, and the houses had not, it is to be feared, been generally connected with the new. These houses were for the most part let out in lodgings to the poorer classes, and their landlords, ignorant may be of the consequences, had not seen that this necessary work was done, and the powers, I believe, of the Sewers' Commission did not extend beyond the street. Hence the choked water-closets; hence the substitution of the chamber utensils, and the scattering of their contents upon the tiles and leads; hence, too, those severe but unjust strictures that fell upon the poor inhabitants, whose native cleanliness only broke down before a stern necessity. All this is past now; the houses drain into the sewers; the pump, I believe, has regained its pristine character; the cholera has since appeared amongst us, but fled like wild fowl from a drained marsh to a more congenial locality; and nought is left us but a sad reminiscence and a lesson that we have been too slow to utilise.

In 1866 the cholera appears amongst us again. Again, as in 1854, there is one locality marked out for its most destructive influence—one locality whose death-rate was so far in excess of all others that it was impossible not to attribute it to some exceptional cause. That exceptional cause, as in 1854, is declared to be in the water-supply; whilst the disturbed or obstructed drainage is passed over without notice. But before giving in our adhesion to this theory, it must be shown that the water, impure as it might be, was more so than it had been for years; more so than on former visitations of the cholera, when the district offered nothing abnormal in its mortality. This, I think, must be shown before its condition can figure as an exceptional cause. Now, with regard to the sewers the case is different. They appear to me to have been placed at this time in a state of transition. The Board of Works were then driving their low-level sewer through the district. The carrying out of this work necessarily involved a great disturbance of the existing drainage; sewers would have to be divided, and the sewage, may be, dammed back. This check would soon amount to stagnation, and the district would for all practical purposes be, until the completion of the works, without any drainage at all.

That something like this was the case may be inferred from the following: A porter from the Eastern Counties Railway came at this time with a parcel to my house. He said that "three persons had died in his short street of cholera; that it was all owing to the drainage being stopped; that his yard was flooded with soil." But why should I go to instances like these when the letter of the Engineer of the works is before me. In this letter, which was addressed to the Registrar-General, in reply to his inquiry as to the state of the drainage of the cholera district, the Engineer says: "It is unfortunately just the locality where our main drainage works are not complete. The low-level sewer is constructed through the locality, and the pumping station at Abbey Mills will not be complete till next summer; therefore the drainage of the district does not yet flow into the low-level sewer. We are deodorising the sewers and gullies freely with chloride of lime, and to-morrow I shall recommend the Board to erect a temporary pumping station at Abbey Mills, to lift the sewage of this district into the northern outfall sewer. This can be accomplished in about three weeks' time." There is a candour about this letter which disarms censure, and the enormous benefit conferred upon the community by the completion of the works challenges forbearance. But can anyone read it and say that the sewerage of the district was not at that time in an exceptional condition? The Engineer says, "this is 'unfortunately' just the locality where our main drainage works are not complete." But why "unfortunate"? When was the drainage of the district made dependent on the completion of the pumping station, and who made it so? This populous and extensive area could not have been without drainage, nor that drainage without an outfall sewer, and it is to be feared that such outfall had been obstructed before another was ready to supply its place. If not, the word "unfortunately" was most unfortunately used.

That the Board of Works had necessarily interfered with the sewerage, there can be no doubt. The whole letter appears to me an admission of the fact, and of a desire to repair the mischief. The deodorising the sewers and gullies, the erection of the temporary pumping station, all point to this conclusion; and though I am quite ready to let hygienes be hygienes, I cannot ignore the fact that it was their intention to have kept the sewage of the district in abeyance till the following summer, had not the cholera compelled them to quicker action, although they subsequently showed, by the erection of a temporary pumping station, they were enabled in three weeks to obtain an outlet for it in the northern outfall sewer.

With facts like these before us, how can we attribute the virulent outbreak of cholera in the district to the impurity of its water-supply? I know I shall be told that this outbreak extended beyond the influence of the metropolitan main drainage works. To that I answer that the malaria, once generated, became the servant of the breeze, and went where it listed. I know also that I may be told that the death-rate of the locality subsided directly after the visit of the Engineer of the Water Company to the General Register Office. To that I answer that this visit was simultaneous, or nearly so, with the first stroke of the piston, as it liberated the pent-up sewage of the district by lifting it into the northern outfall sewer.

No, like the outbreak in this parish, it depended on obstructed sewage; the cause and effect in both localities were the same; or if there were any difference between them, it was like that which existed between Saul and David—viz., that one killed his thousands, whilst the other killed his tens of thousands.

But let me not be misunderstood. I attach as much importance as Dr. Farr does to the purity of our water-supply. All I say is that more evidence of its impurity is wanting than has hitherto been produced before we allow ourselves to be hurried into gigantic undertakings that will be profitable to engineers and contractors, but of doubtful benefit to the community.

I am, Sir, your obedient servant,

Savile-row, Sept. 11th, 1868. JAMES NICHOLS, M.R.C.P. Lond.

Dan.—We are informed by the Actuary that the valuation of the affairs of the Company with a view to the usual quinquennial bonus is just completed, and the result will be in each policyholder's hands in the course of the month. We are much gratified by our correspondent's reference to old times, and we wish that the twenty-three years during which he has subscribed may be trebled.

WE are obliged to *Æsculapius* for his suggestion; but we fear there are considerable difficulties in acting on it.

THE papers of *Mr. Haynes Walton* and *Mr. M'Rae*, of Letterairn, N.B., are in type, and shall appear next week.

Mr. W. T. Wilson.—By courtesy, but not by right.

THE SICK CLUB QUESTION.

To the Editor of THE LANCET.

SIR,—I am pleased to be in a position to correct to a very great extent the misapprehension of my friend, Mr. Garman, as to the position taken by the consulting physicians and surgeons with respect to the Club movement, and their intention to recognise the new-comers. I have before me documentary evidence from three-fourths of the consultants. I have had personal interviews with many of the remaining fourth, and I am pleased to say that, with only a few exceptions, and some of them were retired practitioners, they are prepared to act in such a way as will meet with our approbation. I remain, Sir, yours faithfully,

West Bromwich, September 14th, 1868. JOHN MARLEY.

AITKEN'S SCIENCE AND PRACTICE OF MEDICINE.

We are requested to state that the following words should have been inserted in the advertisement of the fifth edition of this work which appeared in THE LANCET of last week:—"Aitken's Medicine, though increased in bulk upwards of 100 pages, is not enhanced in price."

Mr. R. N. Day, **(Harlow, Essex.)—We cannot find the name of the gentleman mentioned in the Medical Register.**

Surgeon-Major Hinton's **pamphlet shall receive consideration.**

SCOTTISH UNIVERSITIES ELECTION.

To the Editor of THE LANCET.

SIR,—The letter of one of Prof. Lyon Playfair's London Committee needs some comment.

1. Prof. Playfair is not a medical man; but many have promised to vote for him, believing him one. The charge of representing himself to be a medical practitioner, against which your correspondent defends Prof. Playfair, is proof of the demand for such a candidate by the constituency.

2. Dr. Richardson's Committee has never heard from Prof. Playfair at any time, either directly or indirectly, of his intention to retire in favour of Dr. Richardson under any circumstances.

3. Dr. Richardson did not in the first instance *offer himself*, and never intended to *offer himself*, as a candidate. He comes forward in response to the *request* of a large number of the electors.

4. Dr. Richardson could not have been a candidate before the franchise was secured to the St. Andrews Doctors of Medicine, because he would thus have imperilled the chances of their obtaining a vote; because until they were enfranchised, there would have been no chance of returning a purely medical representative; and because any action towards that end would, previous to the passing of the Scotch Reform Act, have been foolish and futile.

5. Dr. Richardson's Committee has no intention of putting a lawyer into Parliament any more than a chemist. It is working to send a Doctor of Medicine to the House of Commons to represent a constituency mainly medical. It appeals for its vindication in this matter to the long and consistent advocacy by THE LANCET of such a representative, and it believes that there is a large number of the electors who not only think with Prof. Play air that Dr. Richardson would make an "admirable representative of medical interests in Parliament," but are prepared for the logical consequence of such belief—to do all they can to put him at the head of the poll.

I am, Sir, your obedient servant,

A MEMBER OF DR. RICHARDSON'S COMMITTEE.

September 2nd, 1868.

THE following circular has been addressed to Graduates of the Edinburgh and St. Andrews Universities:—

London, 8th September, 1868.

SIR,—The event of the approaching election of a member for the Universities of St. Andrews and Edinburgh is of such importance to our profession that we venture to solicit your vote on behalf of Dr. Lyon Playfair, C.B., as a candidate likely to represent to the best advantage the interests of science and medicine. That gentleman must be well known to you as having devoted much attention to all those questions of State medicine on which we most require Parliamentary representation. In the fact that he has had the advantage of a complete medical curriculum, and has been for many years a Professor in the Medical Faculty of the University of Edinburgh, we recognise a strong claim to the support of our profession.

It seems to us of paramount importance that we should elect a member whose habits of thought and study qualify him to speak with authority on the important scientific questions of the day. By unanimous action on our part, this will be rendered certain, while a division of medical interests can only tend to increase the prospects of success of a legal candidate, who has no special claims to our support, and whose education and training are not those which are desirable in the representation of so large a body of medical constituents.

Prompt action is necessary, as the 30th of this month is the last day for registration.

We are, Sir, your obedient servants,

JAMES CLARK, Bagshot Park.
GEO. E. DAY, Torquay, formerly of St. Andrews.
GEORGE HARLEY, 25, Harley-street.
THOS. B. PEACOCK, 20, Finsbury-circus.
W. O. PRIESTLEY, 17, Hertford-street.
J. BURDON SANDERSON, 49, Queen Anne-street.
W. H. WALKER, 37, Queen Anne-street.
C. J. B. WILLIAMS, 49, Upper Brook-street.

To the Editor of THE LANCET.

SIR,—I very much fear that in the election of a representative of the Universities of Edinburgh and St. Andrews, we doctors are playing into the hands of others.

The lawyers, wiser in their generation, have started only one candidate, whilst we have brought forward two physicians and Dr. Lyon Playfair, the latter being, though not a medical graduate, a man of high scientific attainments, a teacher of medical students, and one who has himself received a good medical education.

With the number of medical votes which Mr. Swinton will obtain on account of his political opinions, I fear that he stands the best chance of election, *solely on account of our division*.

We were not content with a thoroughly good scientific man, but we must bring forward purely medical candidates, some time after many votes had been promised to Mr. Swinton and Dr. Playfair. Thus by grasping at too much we run a great risk of losing all. Dr. Richardson's candidature, late as it is, appears to me most unfortunate, as it is most unlikely that he will, under present circumstances, obtain the requisite number of votes, whilst he materially damages the chances of Dr. Playfair. It is very much to be hoped, in the interest of our profession, that Dr. Richardson, much as we all respect him, will not persevere in his efforts. Had he appeared earlier it would have been altogether different.

Yours obediently,

September 9th, 1868. M.D. ST. ANDREWS.

LORD FARNHAM AND MR. CORONER PIERCE.

In reply to several correspondents, we must remark that it is only just to the Coroner that the facts should be known as widely as possible. A portion of the press in the first instance applauded Lord Farnham to the prejudice of Dr. Pierce; but his Lordship's explanation in *The Times* has not been a satisfactory justification of his behaviour towards the Coroner. We were glad to perceive that some of the more influential papers from the first discussed the matter in an impartial way, and the general verdict has not by any means been with Lord Farnham.

A Militia Surgeon **might represent the matter to the proper authorities, and suggest the advisability of its being brought to the notice of the Director-General of the Army Medical Department.**

***Dr. G. Metcalfe Sharpe.*—1.** We do not usually insert a notice of such appointments.—2. A copy of the Pharmacy Act may be obtained at Spottiswoode's, the printers.

***L.R.C.P.*—Surgeons** keeping open surgeries are not required to have registered assistants.

***Alpha.*—One** of the institutions for the weak-minded.

CALOMEL IN DIARRHŒA.

Dr. Bree, of Colchester, encloses to us the following letter on this subject:—

"DEAR DR. BREE,—I have no objection to your stating that my idea of calomel for diarrhœa was suggested to me by the person who has charge of some medicines for me in the country, and that she first gave it in my absence for the sickness which remained after the diarrhœa was checked. The result was so satisfactory that I repeated it in another case, and was quite astonished at the great benefit derived from it. I then gave it in all cases where the sickness, pain, and diarrhœa were violent, and with the best results, as I found almost invariably the vomiting was checked, the pain ceased, and the evacuations had more consistence. I find that I gave it in more than forty cases of all ages, some of which, I think, must have died *very* soon had not the evacuations and pain ceased. I will give you one instance:—

"A man, who had previously been remarkably healthy and strong, had diarrhœa and sickness almost constantly for forty-eight hours. Nothing appeared to relieve him; and if at any time there was a lull in the purging, the sickness appeared to more than make it up by increasing in violence. Any food, drink, such as water, was either rejected or passed through the bowels in a few minutes unchanged. On giving him a dose of calomel, this was quickly altered; the vomiting ceased, the pain was relieved, and after a short time he was much better, although from the great depression produced by the disease he was not able for several days to leave his bed.

"This is about the same tale as I have to tell of most of my cases after I knew of the calomel treatment. Even infants of a few months seemed greatly benefited, and in all cases the quick removal of pain was very marked.

"If there is any further information in my power to give, I shall feel most happy to do so.

"I am, dear Dr. Bree, very sincerely yours,

"HENRY LAVER."

******* **There is nothing in medicine more wonderful than the alleged actions and powers of mercury. We leave this treatment to the consideration of the profession. It is by no means novel, and has many advocates, especially among men of Indian training. We would not be understood to approve it, at least in English practice. If we are not much mistaken, we have seen tenesmus, dysentery, and other unpleasant results from it. Our English diarrhœa can be rectified in most cases with simpler medicines. It will be noted that, according to Mr. Laver's theory, it does not act eliminatively; the vomiting is checked, and the evacuations either cease or become less fluid.—ED. L.**

***Dr. Macloughlin.*—We really cannot insert any more letters.** Life is too short to be going round and round the same old subject. We perceive that Dr. Macloughlin takes great credit to himself for having shown that there is no such thing as a syphilitic virus, and he estimates the practical value of his discovery at thirty thousand pounds, for which he accordingly makes a claim on the Treasury. We hope he may get it.

Public Vaccinator **cannot claim a fee from the guardians either for a second vaccination or for any disease (e. g., erysipelas) arising from the first vaccination.**

THE ETIQUETTE OF CONSULTING PRACTICE.

A Physician and Surgeon **(comprehensive titles!) puts the following questions, from which it would appear that a Fellow of the College of Physicians does rather concern himself too much in matters of general practice, as if he, too, were both physician and surgeon:—**

"Is it consistent with professional etiquette, to say nothing of common fairness, for a practising M.D., F.R.C.P., or M.R.C.P.:

"1. To include three visits for a guinea, particularly in a chronic case, requiring only to be seen once a week?

"2. To attend spinal affections, &c., on the plea of their being of constitutional character?

"3. To take a junior family practitioner by the hand, in a town of limited dimensions especially?

"4. To be constantly driving about with him; visiting in company with him; sending him to patients he has not time to see himself; recommending him in surgical and midwifery cases; and giving out, as I am informed by a brother practitioner, that his *protégé* was a 'sort of partner of his'?

"5. Leaving him in charge of his practice during a temporary absence of a month or six weeks?"

Mr. Scanlan **(Ruthin, N.W.) should apply to the Secretary of the Andersonian Institution, who must have supplied the successful candidate with the necessary testimonials before passing at Chelsea.**

***West Coast.*—It** is published by Churchill and Sons, New Burlington-street.

OPERATIVE TREATMENT OF VARICOSE VEINS.

M.D., L.R.C.S.I.—Surgeons differ as to the operation. We have no data for determining the relative frequency and success of the different methods. The object aimed at is the occlusion of the vein in such a way that no diseased products from the wound nor any coagula from the blood can enter the circulation. Mr. Henry Lee's is a simple plan, and, according to him, a safe and successful one. He passes needles under the vein above and below, compresses the vessel by means of elastic bands of india-rubber passed over the ends of the needles, and divides it subcutaneously in the interval.

Mr. E. D. Hayward.—Accept our thanks.

Obstetrics.—1. All the information required may be obtained from the Students' Number of THE LANCET.—2. The College of Surgeons, Lincoln's-inn-fields.

Mr. S. Oldham's (Burslem) report of the Treatment of Hæmorrhoids shall appear in an early number.

A Country Surgeon.—Our correspondent will have to pass an examination, and register. Apply to the Secretary of the Pharmaceutical Society.

M.R.C.S., (Guildford.)—Yes, at a future time.

THE DEATH-RATE OF GUILDFORD.

To the Editor of THE LANCET.

SIR,—As Mr. Eager, in his letter in your journal of August 29th, has made use of the Royal Surrey County Hospital in the statistics of the death-rate of Guildford and its suburban parts, I beg to send you the following, taken from the hospital report book, the first case dating May 3rd, 1866.

From May 3rd, 1866, to December 31st, 1866, the deaths were—females, 2; males, 9; total, 11. From January 1st, 1867, to December 31st, 1867—females, 5; males, 9; total, 14. From January 1st, 1868, to August 31st—females, 2; males, 5; total, 7.

The total number of deaths up to this time is 32, and the average for the eight months, making up the three years, would be 7⅓; the total number for the three years would be 39⅓, thus giving an average per year of 13⅓. Now, the number of deaths which would take place in the male wards, or that situated in the borough, would be about 30; and out of the number of deaths already taken place, 7 were from the inhabitants of Guildford, and allowing one for the remaining average number of deaths for the eight months to come, would make 8 from the borough, thus making the following:—Out of 39⅓ deaths, 30 would be in the borough of Guildford, and 8 from the inhabitants of the town, or 1 in every 4¼ deaths, thus making 10 per year on the register from the surrounding district.

I remain, Sir, yours obediently,

THOS. F. HOPGOOD, L.R.C.P.L., &c.,
House-Surgeon to the Royal Surrey County Hospital.

Guildford, September 3rd, 1868.

R. L. W.—It would be undesirable to publish the correspondence. It is certainly neither usual nor proper, generally speaking, to make charges on medical men for medical attendance on themselves or their immediate family. Some allowance must be made for a distance of twelve miles. It might be proper to indemnify the medical man for travelling expenses, and to consider the loss of time; but the charges specified seem unbrotherly.

Black Country.—1. A surgeon *cannot* refuse to be sworn till his fee has been paid.—2. The fees allowed to medical witnesses at the Metropolitan Police Courts are 10*s.* 6*d.* a day if the witness resides within two miles of the Court, and £1 1*s.* if resident beyond that distance.

T. T.—Yes, all wines contain some alcohol; but those mentioned can scarcely be termed "intoxicating drinks."

Dr. R. S. Smith.—We have not received the official list.

THE TREATMENT OF CHILDREN IN ST. PANCRAS WORKHOUSE.

To the Editor of THE LANCET.

SIR,—The child alluded to in the remarks appended to the letter from the Medical Officer in Charge of the Nursery (THE LANCET, September 5th) was admitted late in the evening of the 10th August into the infirmary, and was then seen by me, but not thoroughly examined until next morning, when I found that it was suffering from rickets, that four of its front teeth were missing, and that its jaw was bruised. There were no external marks of violence. I did not learn how the injuries were caused until the 13th ult.

I trust that this statement will convince you that I did not neglect to make a proper examination of the patient, and that I did not remain ignorant of the state of the jaw for *three or four* days.

I am, Sir, yours faithfully,

St. Pancras Infirmary, September, 1868. F. W. GIBSON.

P.S.—The newspaper reports of the evidence at the inquest were not correct.

Mr. T. Appleby Stephenson (Nottingham), in common with other correspondents, members of the Medical Club, has written to protest against the proposed increase of the subscription of the original members, on which we have commented elsewhere.

P. W.—An excellent *résumé* of the various theories of sleep, with reference "to the amount required for actual health, and relatively according to the amount of work done daily," will be found in a recent number of the *North British Review*.

Medicus.—No, unless he is an apothecary.

SOIL-MOISTURE AND PHTHISIS.

Mr. Middleton, of Salisbury, claims to have publicly noticed the connexion between moisture of soil and phthisis as early as 1864, and to have suggested inquiry into the subject to Dr. Buchanan about a year later. He avers that the sewage of Salisbury in the River Avon is neither offensive to human beings nor injurious to fish, and gives the dimensions of a large trout taken this year.

THE UNIVERSITY OF ABERDEEN.

PRESSURE on our space last week compelled us to omit from our advertising columns the Prospectus of this University. It will be found in our present number.

CORRIGENDA.—In the paragraph (page 329) in which we noticed the entertainment recently given to the inmates of the institution for the hopelessly afflicted at Putney an obvious error occurred. The heading should have been "The Royal Hospital for *Incurables*," not "Imbeciles."—In our last issue the name of Dr. W. J. Playfair, as Assistant Obstetric Physician, was omitted from the list of the staff of King's College Hospital; and that of Mr. R. J. Bedford should have been given as holding the post of Assistant-Surgeon on board the *Dreadnought* Hospital Ship.

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Laycock, Edinburgh; Dr. Brown-Séquard; Sir H. Thompson; Sir Dominic Corrigan, Dublin; Mr. Haynes Walton; Dr. Lankester; Mr. S. Child; Mr. Forrest; Mr. Hind, Bristol; Mr. Pyle; Mr. Gregg; Dr. Moxon; Dr. M'Kenzie, Cheadle; Mr. Lloyd; Mr. Welsh; Mrs. Clarke, Chertsey; Mr. H. Rogers; Dr. Bree, Colchester; Mr. Wilson; Miss Macon, Spa; Mr. Baynes, York; Mr. Jennings; Mr. W. Allison, East Retford; Mr. Wright; Mr. Pearse; Dr. Nichols; Mr. Kent; Dr. Davy, Worksop; Dr. Dobell; Dr. Pringle, Parramatta; Dr. Jones; Mr. Dickson; Mr. Kilburn; Dr. Neild, Melbourne; Mr. Harrison; Mr. Ireland; Dr. Watson; Mr. Everitt, Norwich; Mr. Dunne; Mr. Macdougall; Mr. S. Gabriel Youf; Mr. Breton, Glasgow; Dr. Highmore; Mr. Mann; Mr. H. Grant; Dr. Kennedy; Dr. Gill, Dover; Mr. Mackenzie, Glasgow; Dr. Burroughs, Mayfield; Dr. Corley, Liverpool; Dr. Clapham, Thorney; Mr. Webb, Lynn; Mr. James; Mr. Milne, Lancaster; Mr. J. Cheese; Mr. Morrice, Binfield; Mr. R. Smith, Chichester; Dr. Davidson, Aberdeen; Mr. Baker; Dr. Roe; Mr. R. Crane, Dursley; Mr. Bell, York; Dr. Gibbon; Mr. Poole, Lincoln; Mr. Simpson, Evesham; Mr. Whalley; Mr. Hutchings, Shanklin; Mr. Fenn; Mr. Eddowes, Derby; Dr. Bennett, Wilton; Mr. Ryley; Mr. Drew; Mr. Knight, Leicester; Mr. Jacobs, Paignton; Mr. Godfrie; Mr. Browne; Dr. Ward; Mr. Morgan, Culmstock; Dr. Gason, Bagni di Lucca; Mr. Sharp; Dr. David Smith, Glasgow; Mr. Walker; Mr. Lovell, Plymouth; Dr. Muspratt, Harrogate; Dr. H. W. Williams; Mr. Manley; Mr. Wheatley, Kibworth; Mr. Leveson, Narbeth; Mr. Scanlan, Rathin; Mr. Oldham, Burslem; Mr. Stothard; Dr. March, Rochdale; Mr. Macnamara; Mr. Sheppard; Mr. Grewcock, Nottingham; Mr. Douglas; Mr. Weekes; Messrs. Evans and Co., Liverpool; Mr. M'Rae, Fettercairn; Dr. R. S. Smith; Dr. Evershed, Ampthill; Mr. Shield; Mr. Phenes, Dolbadarn; Mr. Jones, Easingwold; Mr. Brody; Dr. Remmington, Malta; Mr. Huish, Taunton; Mr. Lubbock, Warneford; Mr. Blythe; Dr. Thomas, Glasgow; Mr. R. Wilkinson; Mr. Spilsbury; Mr. Langston; Æsculapius; Dan; W. A. B.; One who has been taken in; Absentee; M. A. L.; R. C.; Anti-Bashaw; P. W. M. D.; Edinburgh; R. S.; Public Vaccinator; A Military Surgeon; M. B.; R. C. A.; &c. &c.

THE *California Medical Gazette*, the *Lincolnshire Chronicle*, the *Geelong Advertiser*, the *Richmond and Louisville Medical Journal*, the *Brighton Gazette*, the *Glasgow Herald*, the *Gateshead Observer*, the *Bucks Herald*, the *New York Medical Journal*, and the *Surrey Advertiser* have been received.

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